REPAIR MANUAL

&

PARTS LIST

FOR

FUJICA DL-100

FUJI PHOTO FILM CO., LTD.
26-30, Nishiazabu 2-Chome, Minato-ku, Tokyo 106, Japan

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I. TROUBLESHOOTING

FILM TRANSPORTING SYSTEM

1. Film is not advanced.

Close the back cover, and see if the film is advanced successively from S to 1.

- YES → Is the shutter released ? → NO → Repair the shutter.
  - ↓ YES
  - ↓ Check the So switch assembly (5-128).
- NO →
  - ○ Check the battery for voltage.
  - ○ Check the power supply circuit.
  - ○ Check S4 switch for contact.
  - ○ Check SM switch for contact.
  - ○ Check the motor for function.
  - ○ Check relay A (film advance relay).
  - ○ Check the MC board terminals.

2. Film is not successively advanced from S to 1.

- ○ Check S4 switch for contact.
- ○ Check S8 switch for turn on.

3. Film is rewound before it is advanced one frame.

- ○ Check transistor Q1.
- ○ Check terminal ⓗ to insure that lead wire (7-21) is soldered (connected) correctly.

4. Film does not stop after being advanced one frame but is advanced successively.

- ○ Check So switch to see if it turns off correctly.
- ○ Check lead wires for correct connections.

5. Automatic rewind does not start.

- ○ Check capacitor C1.
- ○ Check relay (B).
- ○ Check So switch.
- ○ Check FR-9 terminal.

6. **Film stops before it is rewound completely.**

   - ○ Check capacitor C2 for discharging.
   - ○ Check Ss switch to see if it turns on and off alternately.
   - ○ Check So switch to see if it turns on.
   - ○ Check FR-9 terminal.

7. **Motor does not stop after the film is rewound completely.**

   - ○ Check capacitor C2 for function.
   - ○ Check FR-9 terminal.

8. **Film is not advanced but rewound only.**

   - ○ Check SR switch to see if it turns off.
   - ○ Check the related lead wires for short-circuit.

II. ELECTRICAL CIRCUIT DESCRIPTION

1. Motor drive system

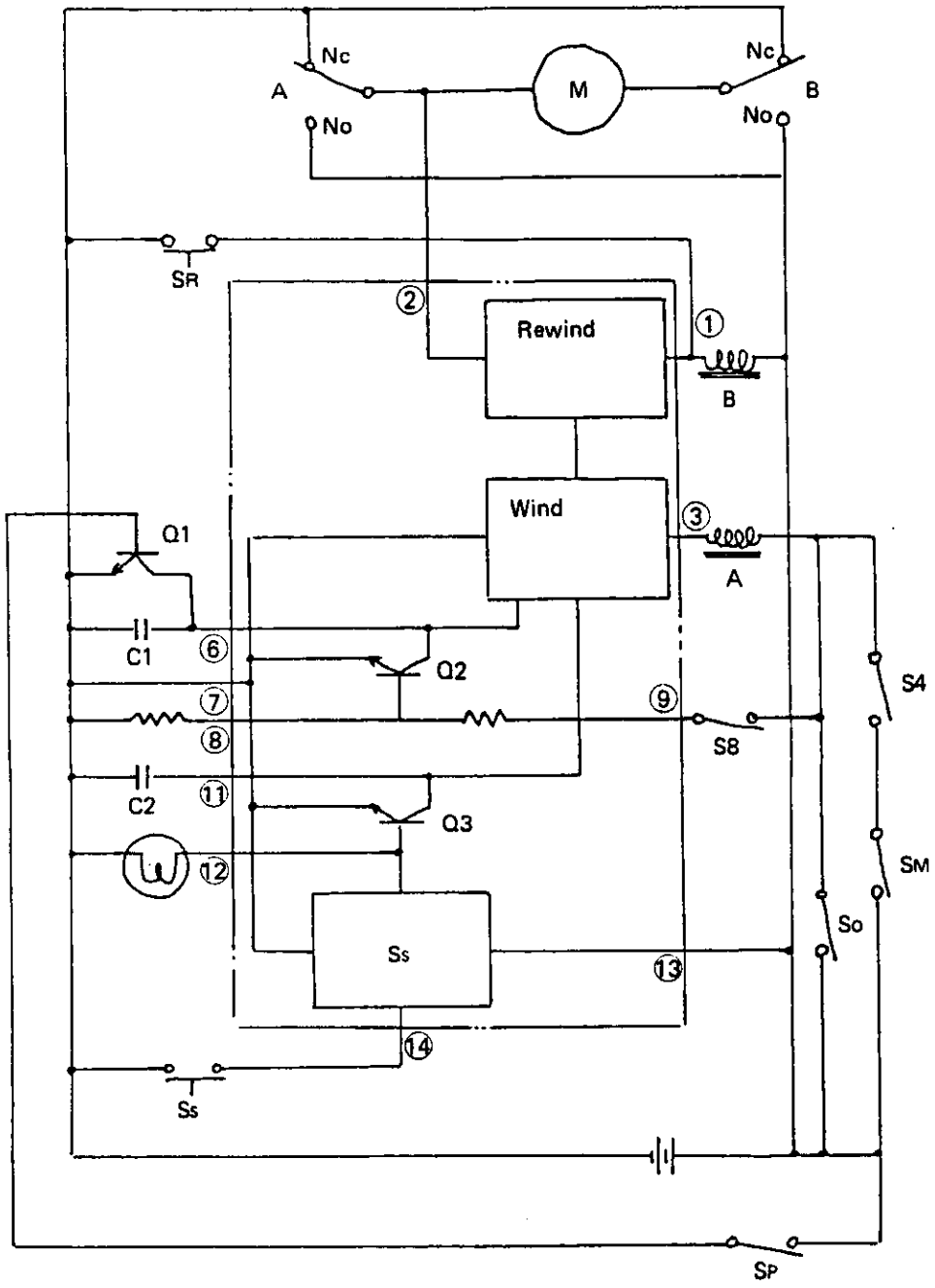
1) The basic operations of the film advancing/rewinding circuit of Fujica DL-100 are similar to those of Fujica Auto-7. The difference is in the film advancing mechanism. The timer is so set that the motor operates slightly longer than the actual time required in advancing the film one frame, and film advancing stops as So switch is preferred. With this design, even if the camera is loaded with new batteries, the film perforation will never be damaged.

2) Film advancing is automatically reversed to film rewinding when the last frame is exposed in the same manner as Fujica Auto-7. In other words, the film is rewound as the film advancing timer turns off.

3) The film rewinding circuit uses film advancing signal generated by Ss switch in the same manner as Fujica Auto-7. To be more specific, the film rewiding timer repeatedly resets so that the motor operates until the film is rewound completely. Even after the Ss signal ends (even after the film is rewound completely), the motor keeps operating until the timer turns off.

4) During the film is being rewound, So switch turns on continuously. Film transporting mode is changed over to the film advancing mode as soon as the film is rewound completely (as soon as the timer turns off). Film is advanced until So switch turns off and the motor stops after advancing the film one frame.
The exposure counter idles at character "1" , and resets to "S" when the back cover is opened.

Block Diagram of Film Advance/Rewind Circuit



FILM ADVANCE/REWIND OPERATION

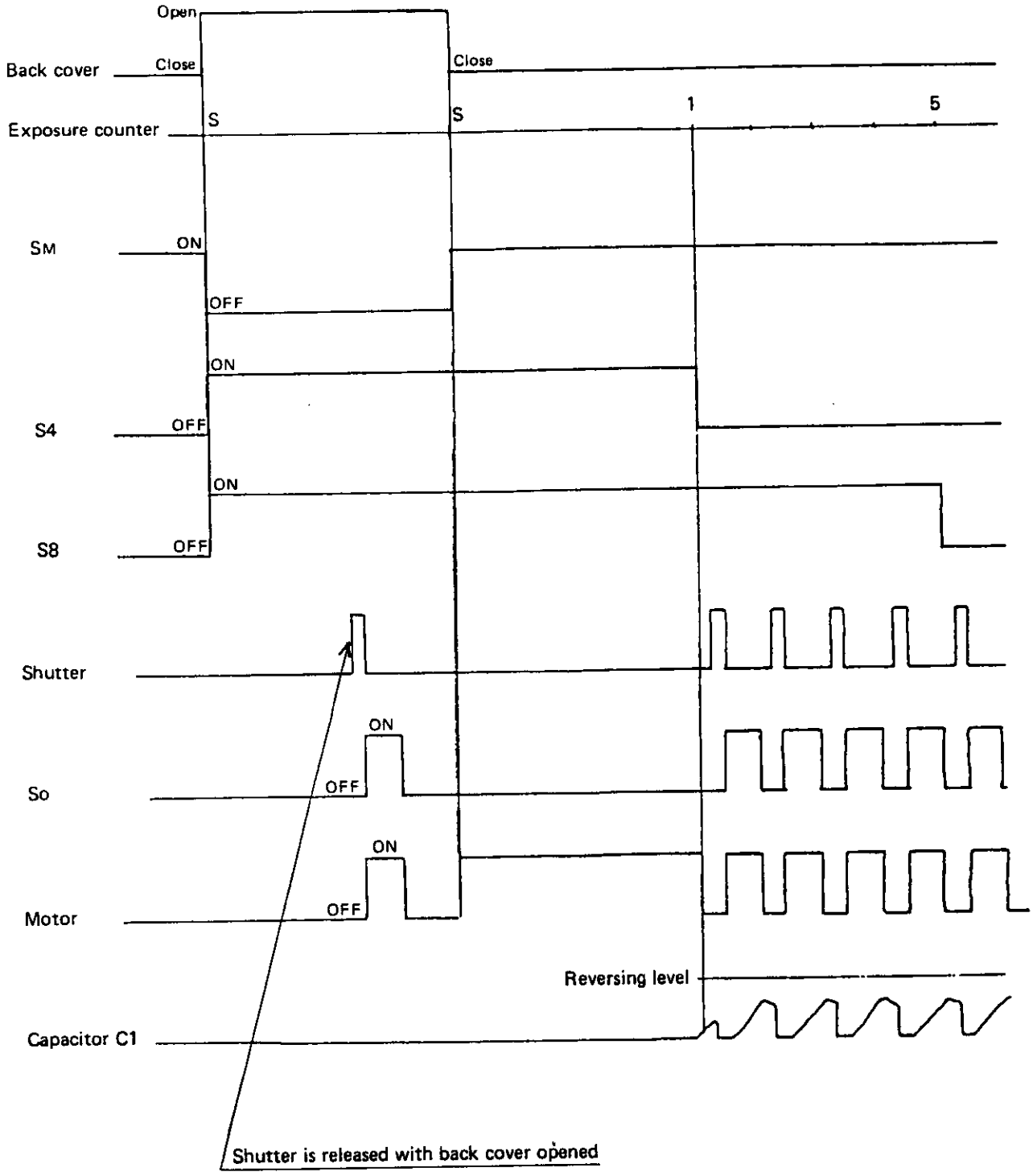
1. 4-frame successive advance at starting

1) S4 and S8 switches interlocked with the exposure counter turn on. (These switches turn on automatically when the exposure counter is in position "S".)
2) SM switch interlocked with the back cover turns on.
(This switch normally turns on when the back cover is closed.)
3) The timer for rewinding (capacitor C1) is discharged by transistor Q2 until S8 switch turns off, allowing the film to be advanced successively.
4) When So switch turns off as the S4 switch turns off (exposure counter is at character "1"), the motor stops even if SM switch turns on. [Film rewinding mode is not realized until S8 switch turns off.] When the S8 switch turns on, capacitor C1 is discharged.

2. One frame film advancing

1) Whenever the film is advanced one frame, So switch turns on and off repeatedly. Whenever the shutter is released, SP switch turns on. Then, transistor Q1 turns on, and capacitor C1 is discharged at each shot.
2) So switch is mechanically turned on as the shutter is released.
3) For automatically reversing from film advance to film rewind, when the film stops and film advance mode continues with So switch turned on, capacitor C1 is charged, causing the timer to be turned off, and the film advance circuit turns off.

Switch/Motor Timing Chart (Film Advancing)



3. Film rewinding

1) When relay A breaks (relay A OFF signal), relay B makes, causing polarity of the motor to be reversed, and the motor turns reversely.
2) During film rewinding, Ss signal is used in the same manner as Fujica Auto-7, and the timer is reset by capacitor C2 until the film is rewound completely.
3) When the film is rewound completely and Ss signal ends to flash, capacitor C2 is charged, and the motor turns until the timer turns off.
4) However, as So switch is kept in the turned on condition, the film transporting mode is changed over to the film advance mode again (relay A makes) as soon as the timer turns off, and the motor turns forward for one frame until So switch turns off.

4. Manual film rewind

When R button is depressed (when S_R switch turns on), relay B is made forcedly. With relay B made, the circuit is changed over to the film rewind mode, and the film is rewound completely to the end.

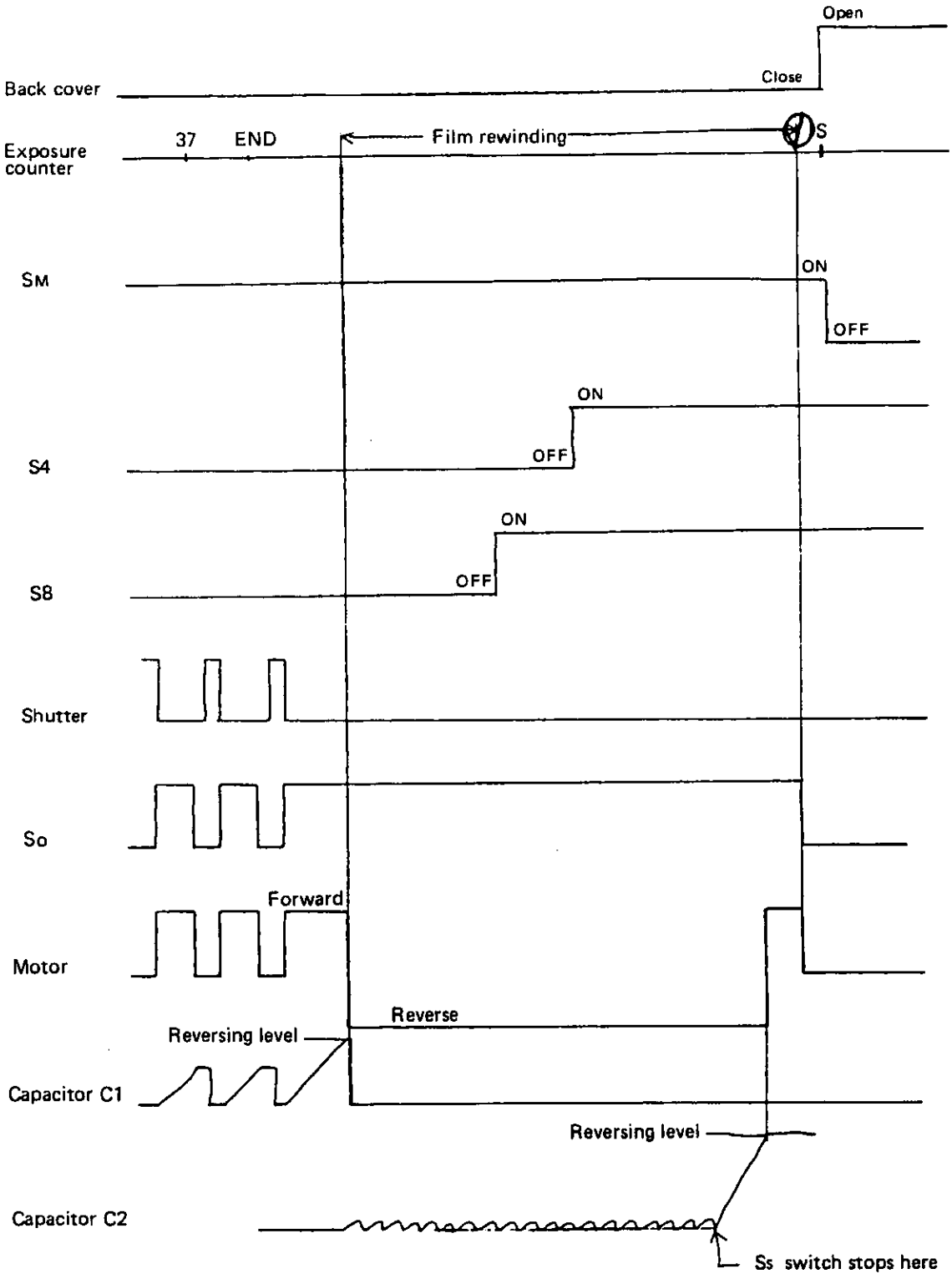
NO AUTO FILM REWIND:

CHECK FOR FILM RUN LIGHT BLINKING WITH FILM ADVANCE AND MANUAL REWIND.

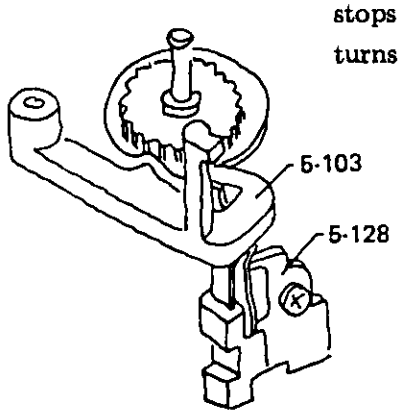
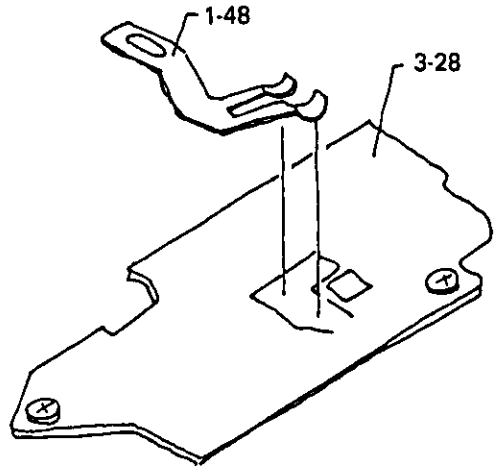
IF NOT CHECK SPROCKET SWITCH CONTACTS (YELLOW WIRES TO PC BOARD.

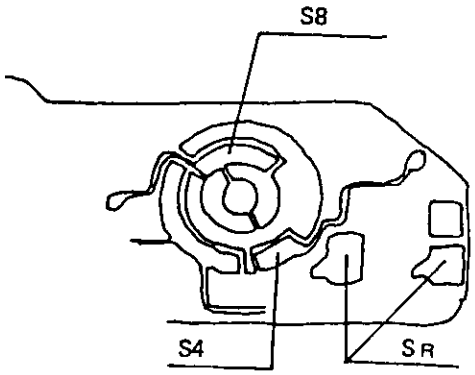
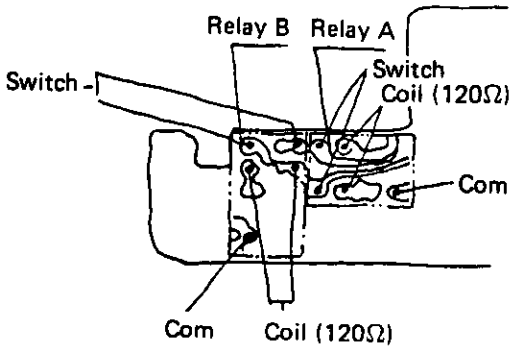
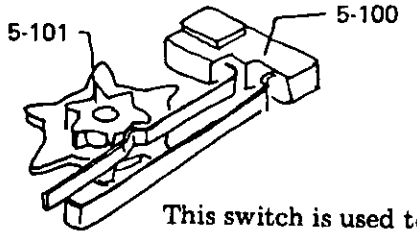
MAJOR DISASSEMBLY - FULL ESTIMATE.

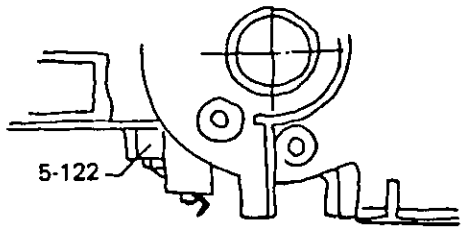
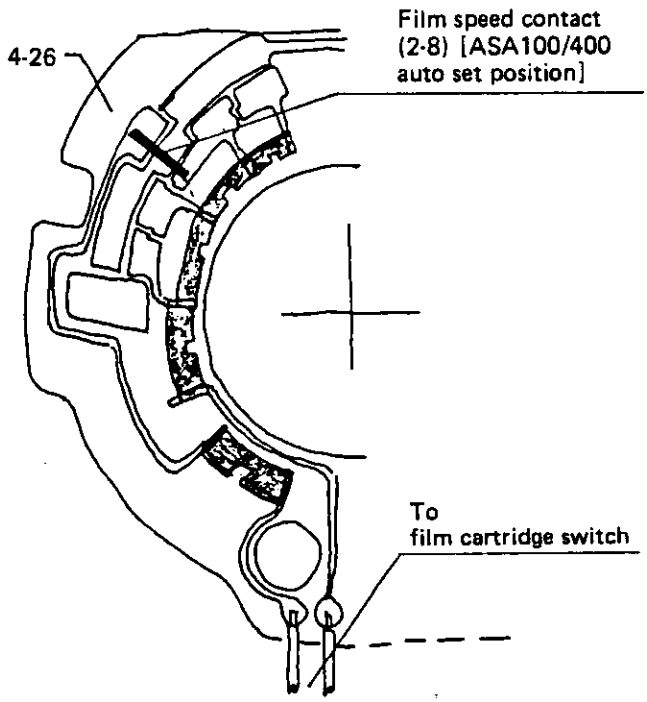
Switch/Motor Timing Chart (Film Rewinding)

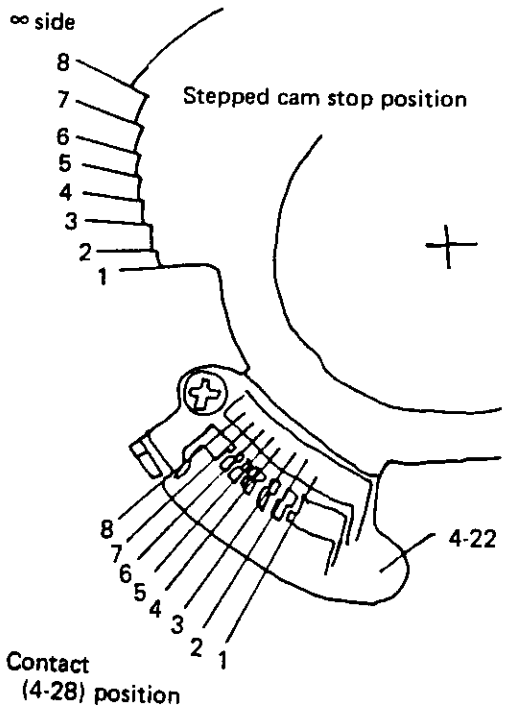
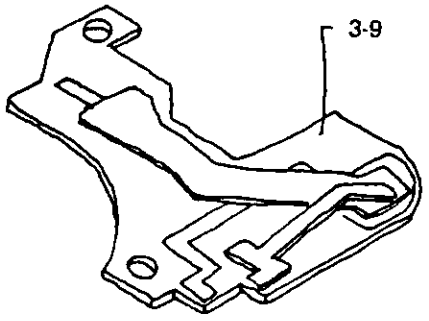


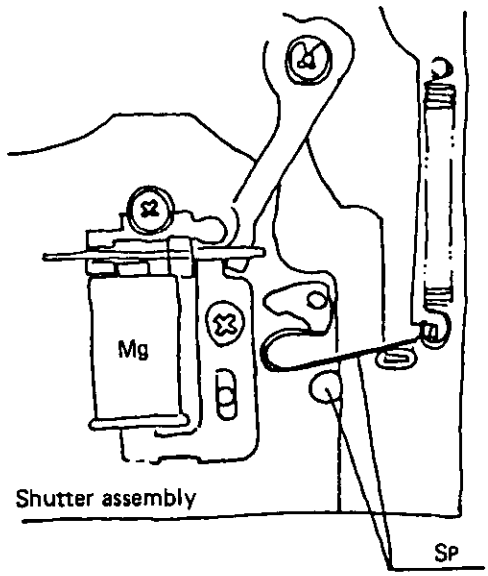
2. Switch description

Symonl	Function	Sketch and Operation
So	Film advance switch	The motor starts as this switch turns on and stops as this switch turns off. 
SM	Film advance main switch	 With SM switch turned on, the exposure counter is automatically set and film is advanced four frames from "S" to "1".
S4	4-frame advance at starting	When the back cover is closed (when SM switch turns on), the motor operates continuously and automatically until the film is advanced to the first frame.

Symbol	Function	Sketch and Operation
S8	Prohibits film re-winding until the film is advanced eight frames.	This switch discharges capacitor C1 (rewind start detecting capacitor). 
SR	For forced rewinding	
Relay A	Advance side	
Relay B	Rewind side	
Ss	Film advance/rewind confimration lamp flashing switch	 This switch is used to flash the lamp only when advancing the film. This switch is used to reset the circuit when rewinding the film. When the switch is in poor contact, film is not rewound correctly.

Symbol	Function	Sketch and Operation
Film cartridge switch		This switch identifies film speed.  This switch turns on when ASA400 film is loaded. This switch turns off when ASA100 film is loaded.
SA	Automatic film speed setting switch	When the film speed selector is set to AUTO, this switch turns on. 

Symbol	Function	Sketch and Operation
	Aperture selecting resistor assembly for flashmatic photographing	
SST	Flash switch	This switch is interlocked with the flash lamphead pop up system, and switches flash charging and flash stop. 

<table>
<tr><th>Symbol</th><th>Function</th><th>Sketch and Operation</th></tr>
<tr><td>SP</td><td>Shutter power switch</td><td rowspan="2"> 
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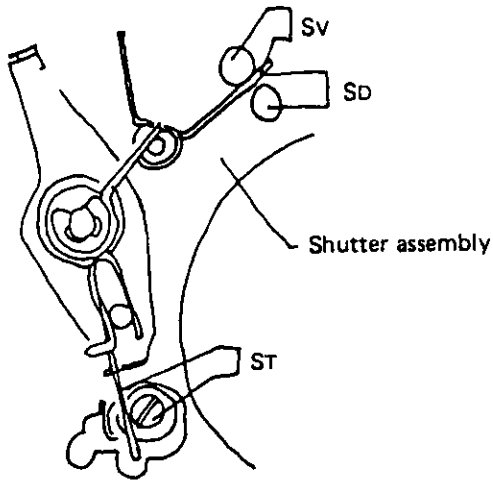
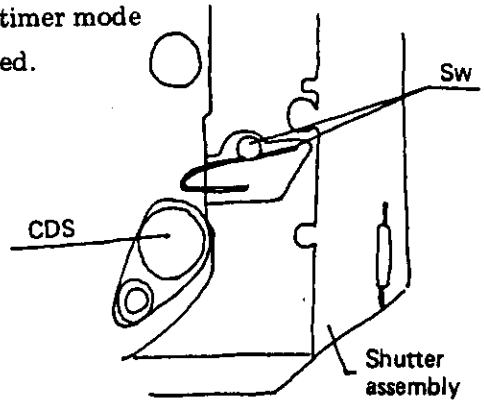
<tr><td></td><td></td></tr>
<tr><td>ST</td><td>Timing switch for exposure control</td><td rowspan="3"> 
</td></tr>
<tr><td>Sv</td><td>Switches over AF operations</td></tr>
<tr><td>SD</td><td>Date switch</td></tr>
<tr><td colspan="2">Note: Not applicable to those having no dating system.</td></tr>
<tr><td>Selftimer Sw</td><td>Self-timer mode set switch</td><td rowspan="2">With this switch turned off, the self-timer mode is realized. 
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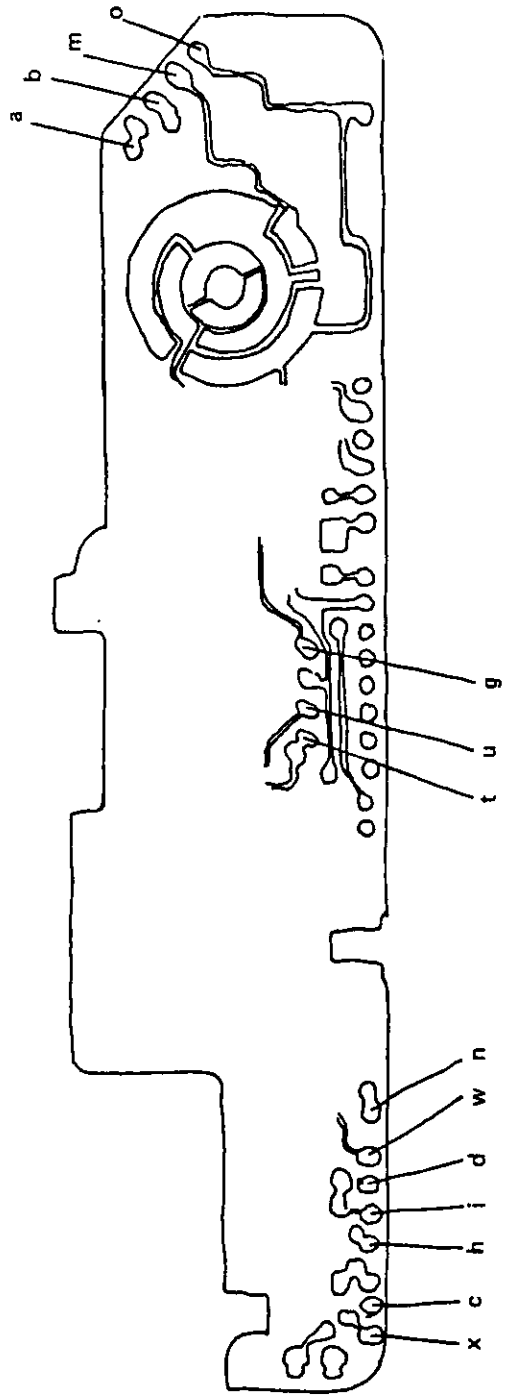
<tr><td></td><td></td></tr>
</table>

3. Terminal description for MC board assembly (3-7)

Terminal Symbol	Function
a.	Circuit power supply ⊕ 3V
b.	Circuit power supply ⊖
c.	Motor power supply ⊕ 3V (During rewinding only)
d.	* Date printing switch (causes the date shutter to operate only)
g	Ss switch ⊕ terminal
h.	3V is delivered to this terminal when the shutter release is depressed. (Sp turns on). This terminal is to discharge capacitor C1.
i.	Source voltage minus 0.6 to 0.7V is delivered to this terminal when So switch turns on, Sp switch turns on and/or during rewinding. With this terminal, flash charging stops under the above modes.
m.	Sm switch terminal
n.	Flash ready lamp terminal
o.	So switch terminal
t.	* Date shutter terminal ⊕
u.	* Date shutter terminal ⊖
w.	Camera shake warning LED terminal
x.	Motor power supply ⊕ 3V (for rewinding)

(NOTE: Not applicable to those having no dating system.)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t
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w
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i
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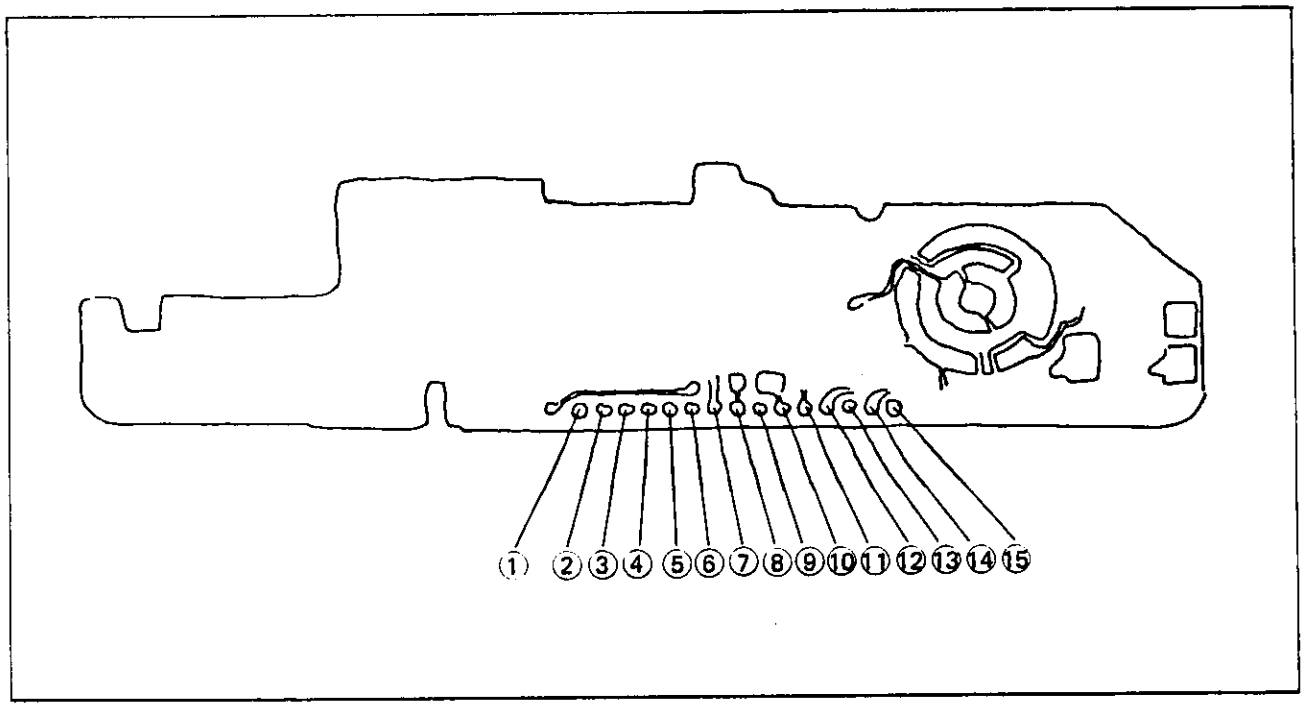
x

4. FR9 terminal description (on MC board) [IC for motor control]

Terminal Number	Function
1.	Terminal for rewinding relay During rewinding: [L] During advancing: [H]
2.	GND for rewinding circuit During advancing: [H] During rewinding: [L]
3.	Terminal for advancing relay During advancing: [L] During rewinding: [H]
4.	Power ⊕ is supplied when So switch turns on and film is advanced or rewound.
5.	Power supply terminal ⊕ (active during rewinding).
6.	Capacitor C1 terminal [H] : Rewind starts
7.	GND
8.	Resistor terminal (preventing floating of transistor for discharging capacitor C1.) If this resistor is disconnected, the film may not be rewound even if it has been advanced over 8th frame.
9.	S8 switch terminal (If this terminal is not connected correctly, the film will not be advanced successively four frames at the starting, but the film will be rewound.)
10.	Ss circuit protecting capacitor is connected to this terminal.
11.	C2 capacitor terminal (This capacitor detects the end of film rewinding.) [H] output — Rewind stops During rewinding, the output is kept in [L] with Ss switch.
12.	Ss lamp terminal
13.	Ss circuit power supply [H] output
14.	Ss signal input terminal. During film advancing, [H] and [L] are repeated alternately. Voltage at [H] is affected by a tester. As long as there is a difference between [H] and [L], the condition is normal.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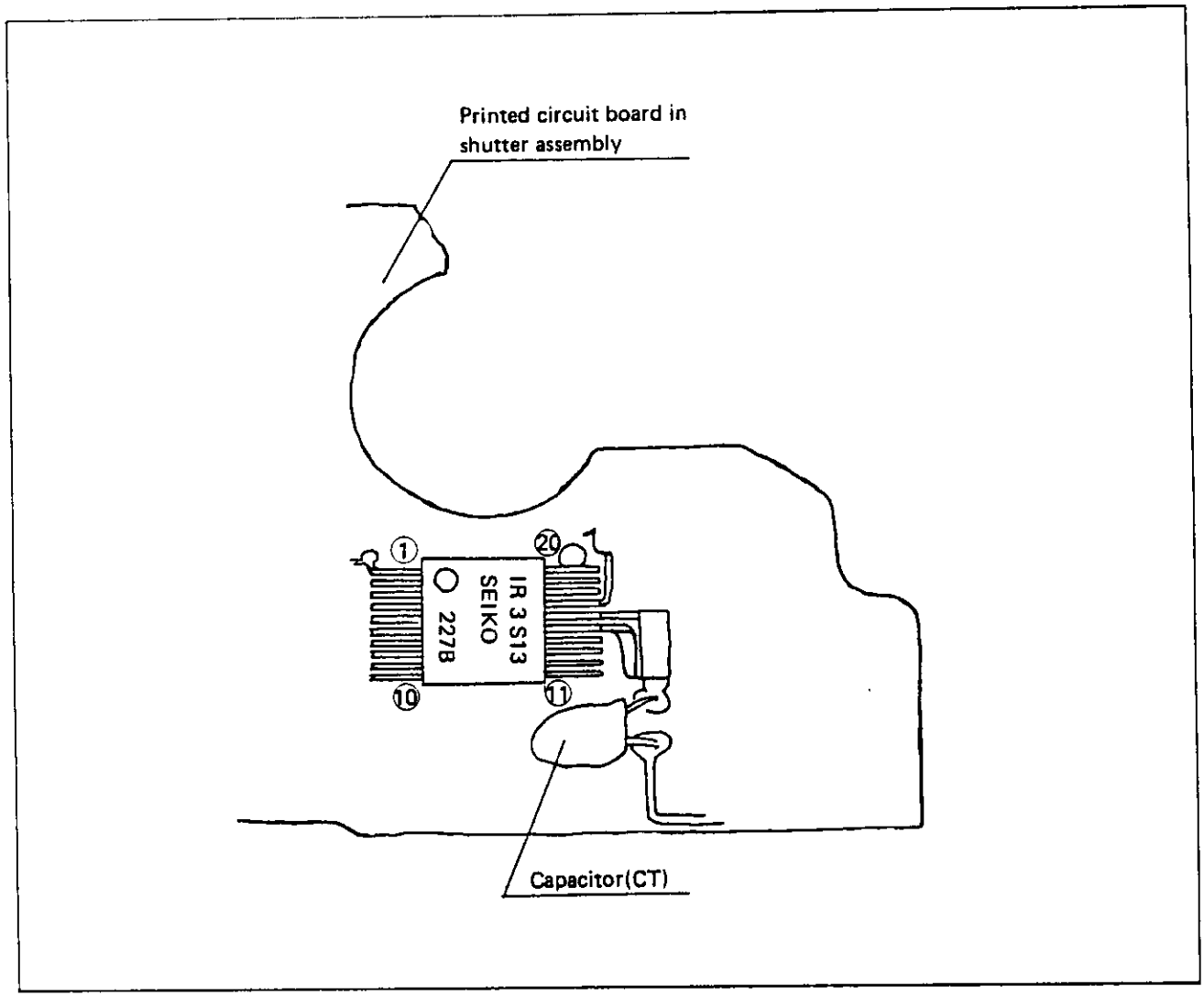
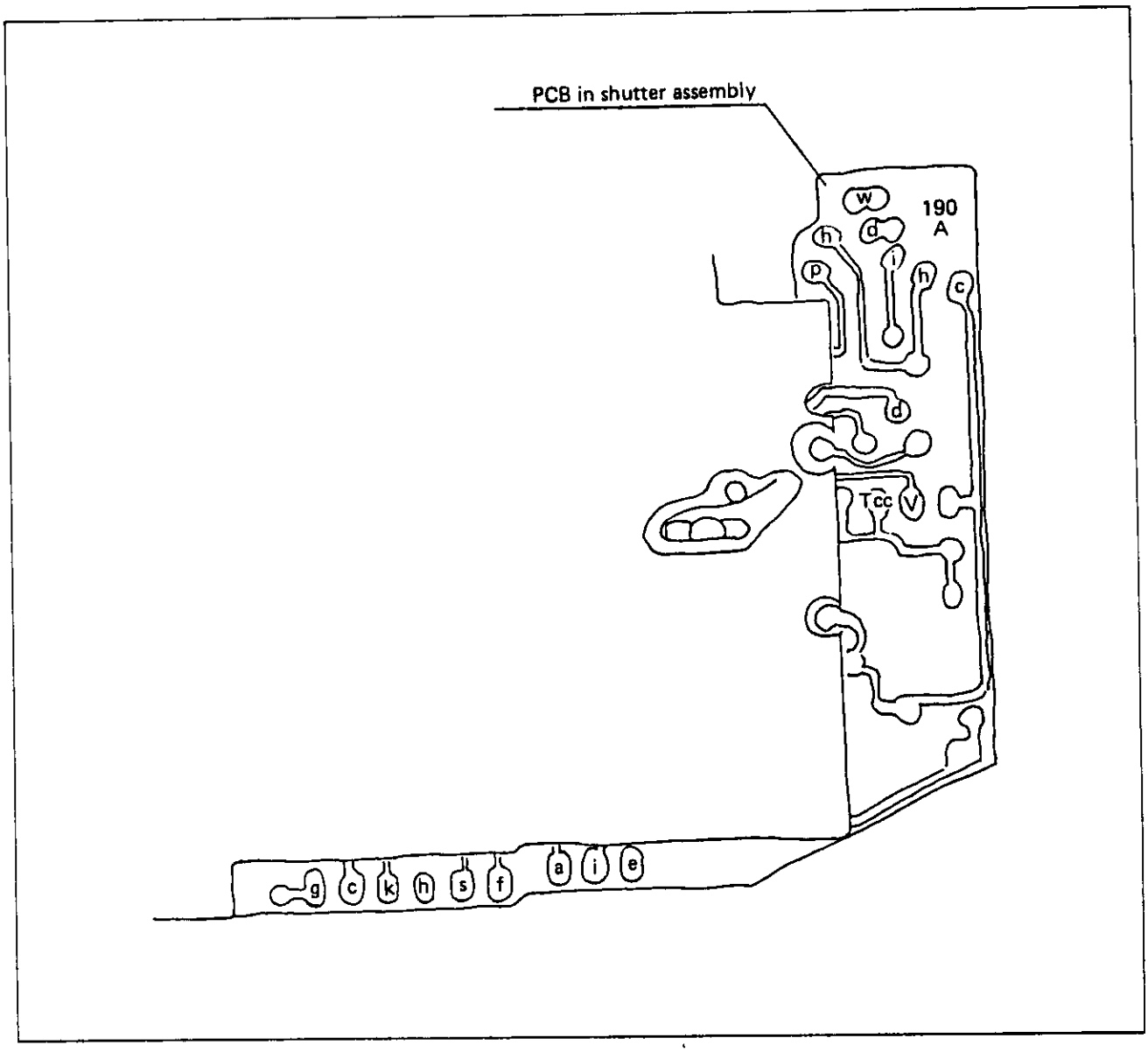
5. IC [IR3S13] pin description (shutter assembly)

Pin No.	Function
1.	Terminal for self-timer display LED
2.	Self-timer mode changeover switch terminal (Sets time of self-timer)
3.	Exposure time set terminal
4.	Synchro switch (Flash mode identifying terminal)
5.	Shutter start switch (AF prohibiting switch) [Interlocked with Sv switch operations]
6.	Exposure time start switch (synchronized with the mechanism)
7.	Power supply ⊕
8.	Camera shake warning input terminal
9.	Classified
10.	Classified
11.	CdS input terminal
12.	Film speed input terminal
13.	Distance data input terminal (for flashmatic)
14.	Classified
15.	Classified
16.	Classified
17.	Exposure control capacitor (CT) terminal
18.	Camera shake warning LED output terminal
19.	Exposure time control magnet terminal
20.	Ground


Printed circuit board in
shutter assembly
1
20
IR 3S13
SEIKO
227B
10
11
Capacitor(CT)

6. Terminal description for shutter assembly

Terminal Symbol	Function
a.	Circuit power supply ⊕
c.	Circuit power supply ⊖ (GND)
d.	Date switch terminal (Causes the date shutter to operate only) (NOTE: Not applicable to these having no dating system.)
e.	Flash mode identifying terminal To IC #4.
f.	Film speed input terminal To IC #14.
g.	ASA100-400 identifying terminal [L] : ASA400
h.	Power supply ⊕ preceded by SP switch
i.	Flash charging stop terminal (Source voltage minus 0.6 to 0.7V is delivered to this terminal when film is being rewound, SP switch turns on and/or So switch turns on.)
k.	Distance data input terminal for flashmatic photographing.
p.	Terminal for LED (zone focus mark) in the viewfinder.
s.	Terminal for self-timer mode displaying LED.
w.	Terminal for camera shake warning LED
v.	AF prohibiting switch terminal (When the level is switched over from [L] to [H], AF operation stops.) This terminal is interlocked with Sv switch.


PCB in shutter assembly
190
A
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d
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i
p
h
c
d
Tcc
V
g
c
k
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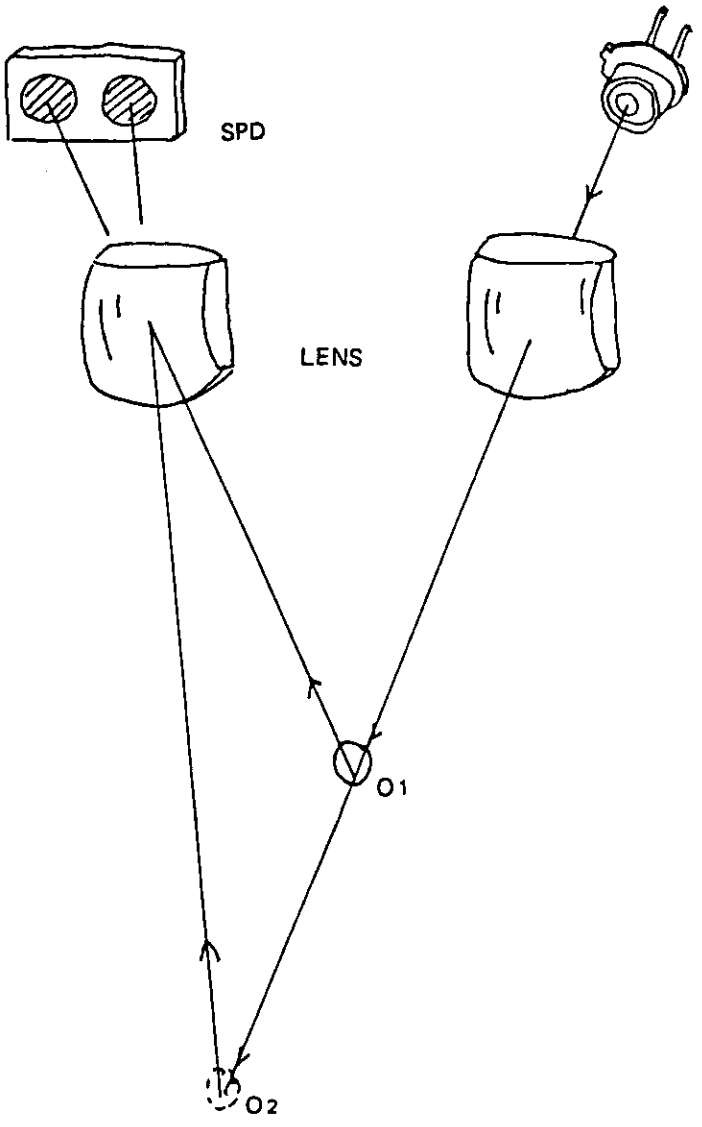
s
f
a
i
e

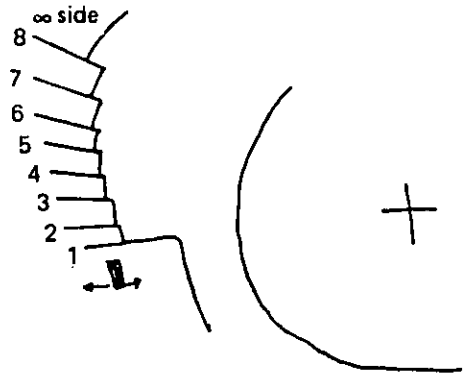
7. Automatic focusing system description

- For the AF module of Fujica DL-100, Seiko FCM-A module is used.
- Infrared ray is applied to a subject, the AF module receives the infrared ray reflected from the subject, and accomplishes a triangulation. This is of an active infrared type measuring system.
- With the shutter release depressed in a half way, focus memory can be made.



Automatic Focusing Accuracy

With the standard reflecting board (Oxford Gray No. 22; Reflection rate: 18%) used, the accuracy must be within plus or minus one step of each step shown below.

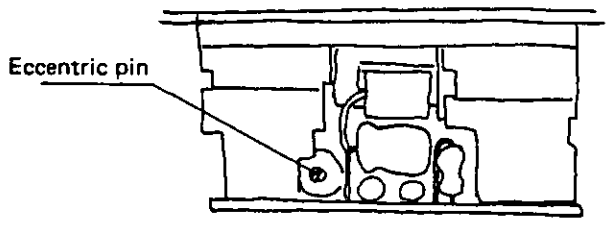


Step No.	Distance measuring range	
1	1m	0.5m ~ 1.07m
2	1.14	~ 1.23m
3	1.34	~ 1.46m
4	1.62	~ 1.81m
5	2.06	~ 2.38m
6	2.84	~ 3.54m
7	4.69	~ 6.99m
8	13.9	~ ∞

When accuracy is deviated at all steps in parallel: Primarily, no adjustment is required.

If necessary, adjust the eccentric pin in the AF system.

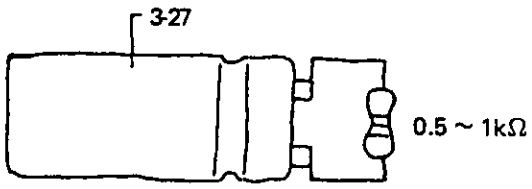
No adjustment is required on the control lever.



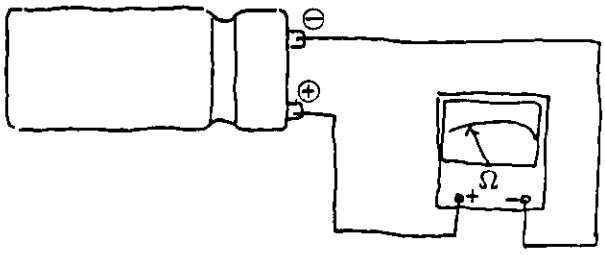
8. Flash system

Checking the Main Capacitor

Connect a 0.5kΩ to 1kΩ resistor to the main capacitor terminals as shown below to discharge the capacitor completely.

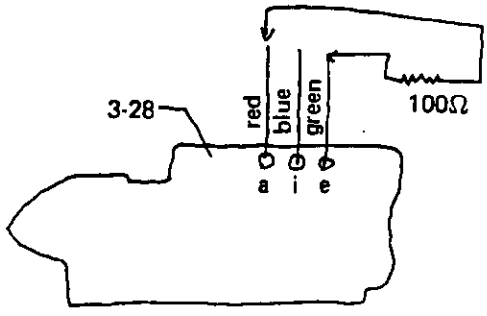


Check the main capacitor with a tester. When the pointer of the tester deflects momentarily and returns to the original position, the capacitor is normal.



Flashing Test (Checking the trigger circuit)

Connect a 100Ω resistor across terminals a and e of the flash circuit assembly (3-28) as shown below and see if the Strobo flashes. Disconnect the resistor and see if the charging starts.



III. DISASSEMBLY

1. Top cover assembly (1-1)

- Remove the set screw (1-16).
- Remove the set screw (1-17) located beneath the leather (2-21).
- Remove the other set screw (1-17).
- Remove the top cover assembly (1-1) upward carefully.

2. Back cover assembly (1-20)

- Disengage the moving blade (1-38) with the pin (1-28).
- Remove two set screws (1-42), and remove the back cover assembly (1-20) downward.

3. Guide plate assembly (1-32)

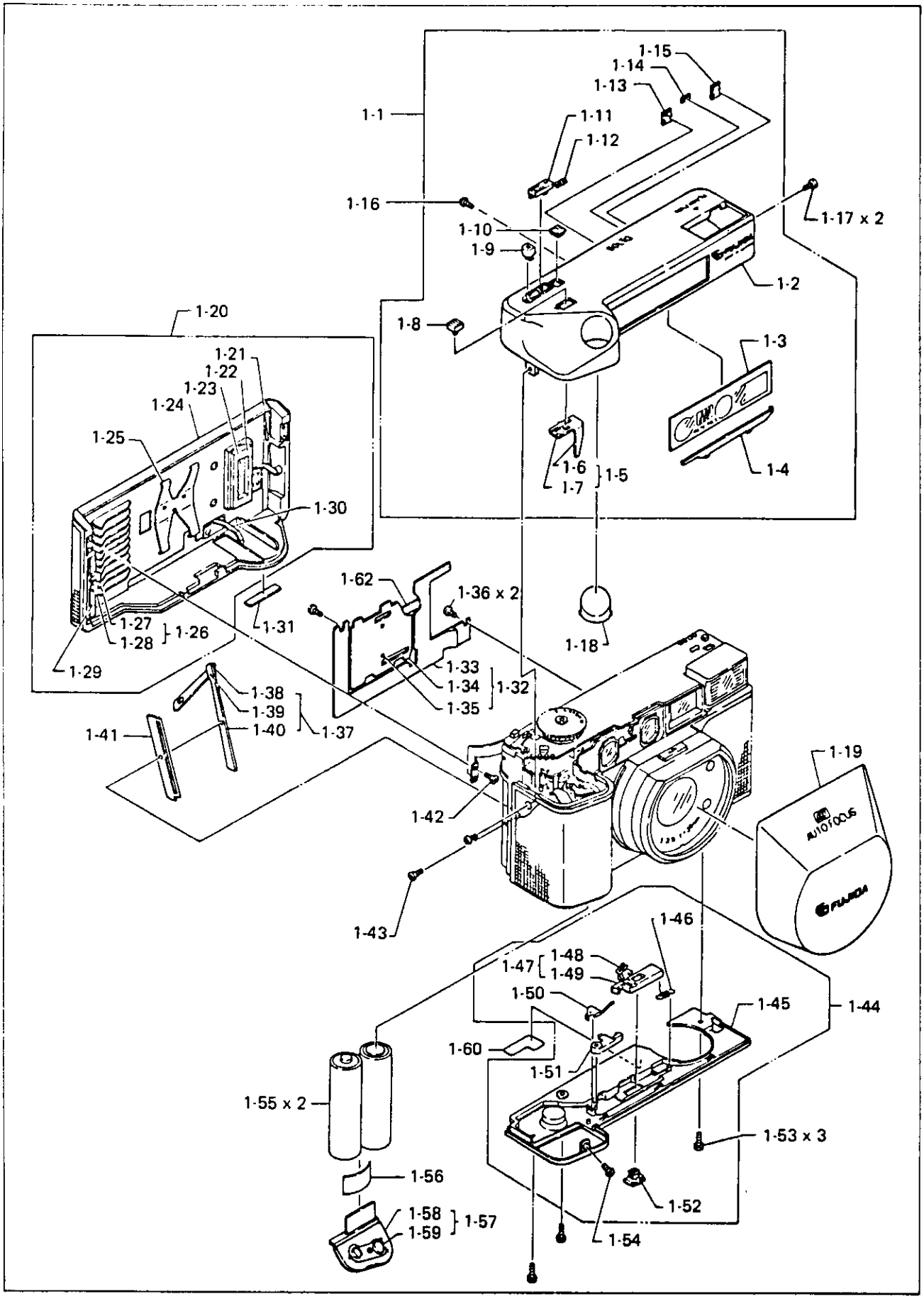
- Remove the back cover assembly (1-20) as described in 2 above.
- Remove two set screws (1-36), and remove the quide plate assembly (1-32).

4. Cutter assembly (1-37)

- Remove the set screw (1-43), and remove the cutter assembly (1-37).

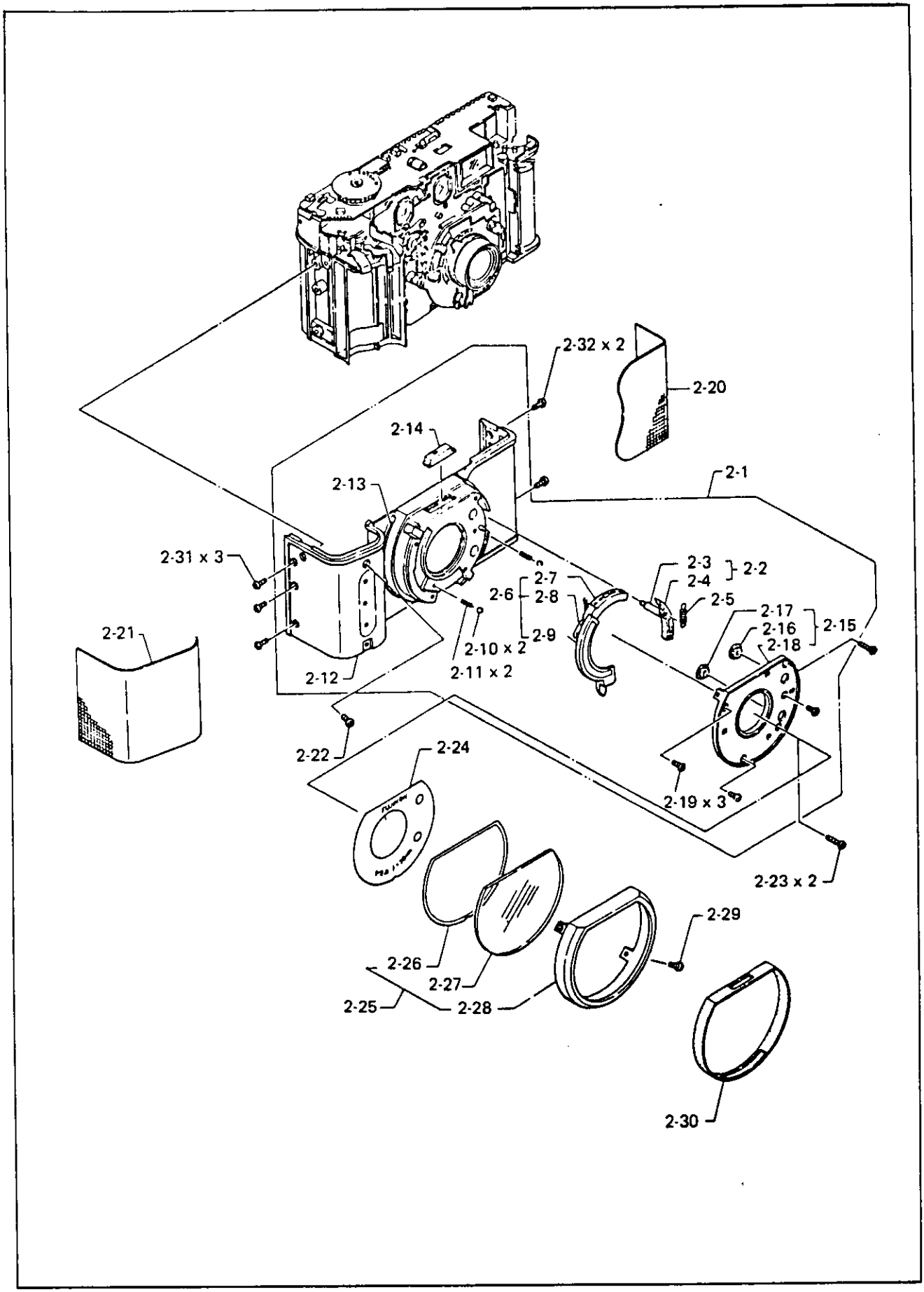
5. Bottom cover assembly (1-44)

- Remove the set screw (1-54) located beneath the leather (2-21).
- Remove three set screws (1-53), and remove the bottom cover assembly (1-44) carefully so that the leaf spring (1-56) will not drop off.


1-1
1-2
1-3
1-4
1-5
1-6
1-7
1-8
1-9
1-10
1-11
1-12
1-13
1-14
1-15
1-16
1-17 x 2
1-18
1-19
1-20
1-21
1-22
1-23
1-24
1-25
1-26
1-27
1-28
1-29
1-30
1-31
1-32
1-33
1-34
1-35
1-36 x 2
1-37
1-38
1-39
1-40
1-41
1-42
1-43
1-44
1-45
1-46
1-47
1-48
1-49
1-50
1-51
1-52
1-53 x 3
1-54
1-55 x 2
1-56
1-57
1-58
1-59
1-60
1-62
AUTOFOCUS
FUJICA

6. Front cover assembly (2-1)

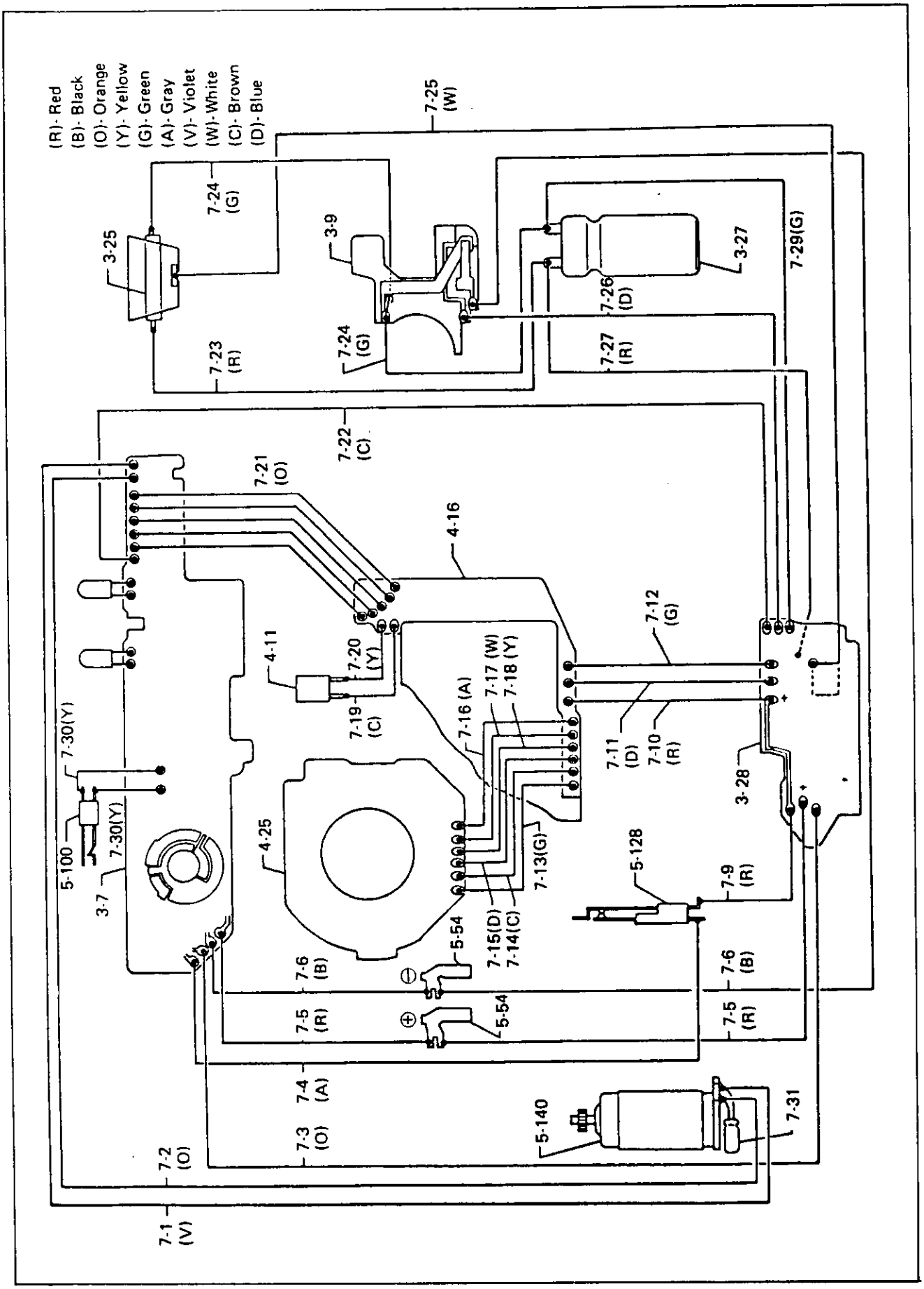
- Remove the rubber ring (2-30).
- Remove the set screw (2-29).
- Remove the filter assembly (2-25).
- Peel off the name plate (2-24). The name plate has been installed with Pliobond.
- Remove two set screws (2-23).
- Remove the set screw (2-22).
- Remove three set screws (2-31).
- Remove two set screws (2-32).


2-32 x 2
2-20
2-14
2-1
2-13
2-31 x 3
2-3
2-4
2-2
2-7
2-6
2-8
2-5
2-17
2-16
2-15
2-18
2-9
2-10 x 2
2-11 x 2
2-21
2-12
2-22
2-24
2-19 x 3
2-23 x 2
2-29
2-26
2-27
2-25
2-28
2-30

7. MC board assembly (3-7)

- Remove the clip (3-1).
- Remove the exposure counter dial assembly (3-2).

  NOTE: Be careful not to deform or contaminate the contact (3-5).
- Unsolder and disconnect the lead wires (7-1 and 7-2).
- Unsolder and disconnect the flat cable (7-21).
- Unsolder and disconnect lead wires (7-22, 7-30 x 2, 7-3, 7-4, 7-5 and 7-6).
- Remove two set screw (3-6).
- Remove the MC board assembly (3-7) upward.

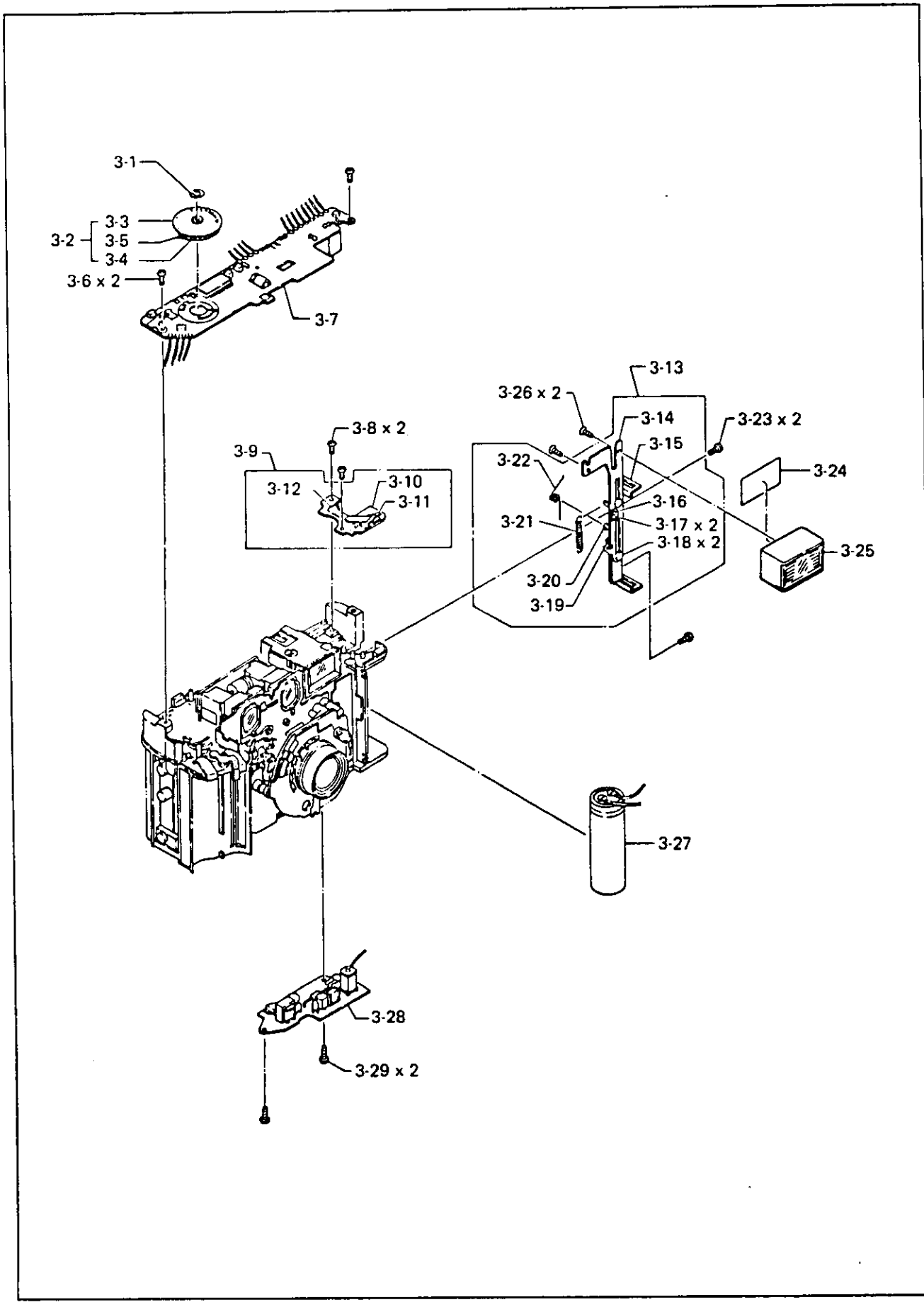

(R)- Red
(B)- Black
(O)- Orange
(Y)- Yellow
(G)- Green
(A)- Gray
(V)- Violet
(W)- White
(C)- Brown
(D)- Blue
7-25 (W)
7-24 (G)
3-25
3-9
3-27
7-29(G)
7-26 (D)
7-23 (R)
7-24 (G)
7-27 (R)
7-22 (C)
7-21 (O)
4-16
7-12 (G)
4-11
7-20 (Y)
7-19 (C)
7-16 (A)
7-17 (W)
7-18 (Y)
7-30(Y)
7-11 (D)
7-10 (R)
3-28
5-100
7-30(Y)
3-7
4-25
5-128
7-9 (R)
7-13(G)
5-54
7-15(D)
7-14(C)
7-6 (B)
7-6 (B)
7-5 (R)
5-54
7-5 (R)
7-4 (A)
7-3 (O)
7-2 (O)
7-1 (V)
5-140
7-31

8. Flash lamphead assembly (3-25)

- Peel off the seal (3-24).
- Remove two set screws (3-26).
- Remove two set screws (3-8), and remove the switch assembly (3-9).
- Remove the capacitor (3-27) from the adhesive tape.
- Remove two set screws (3-29).
- Disconnect lead wires (7-3, 7-5, 7-9, 7-10, 7-11, 7-12 and 7-22) as required.

9. Strap lug assembly (3-13)

- Remove two set screws (3-23), and remove the strap lug assembly (3-13).


3-1
3-2
3-3
3-5
3-4
3-6 x 2
3-7
3-8 x 2
3-9
3-12
3-10
3-11
3-13
3-26 x 2
3-14
3-23 x 2
3-15
3-22
3-24
3-16
3-21
3-17 x 2
3-18 x 2
3-25
3-20
3-19
3-27
3-28
3-29 x 2

10. View finder assembly (4-1)

- Remove two set screws (4-15).
- Unsolder and disconnect lead wires (7-19 and 7-20) from the LED.
- Remove the viewfinder assembly (4-1) carefully by paying attention on the connected lead wires.

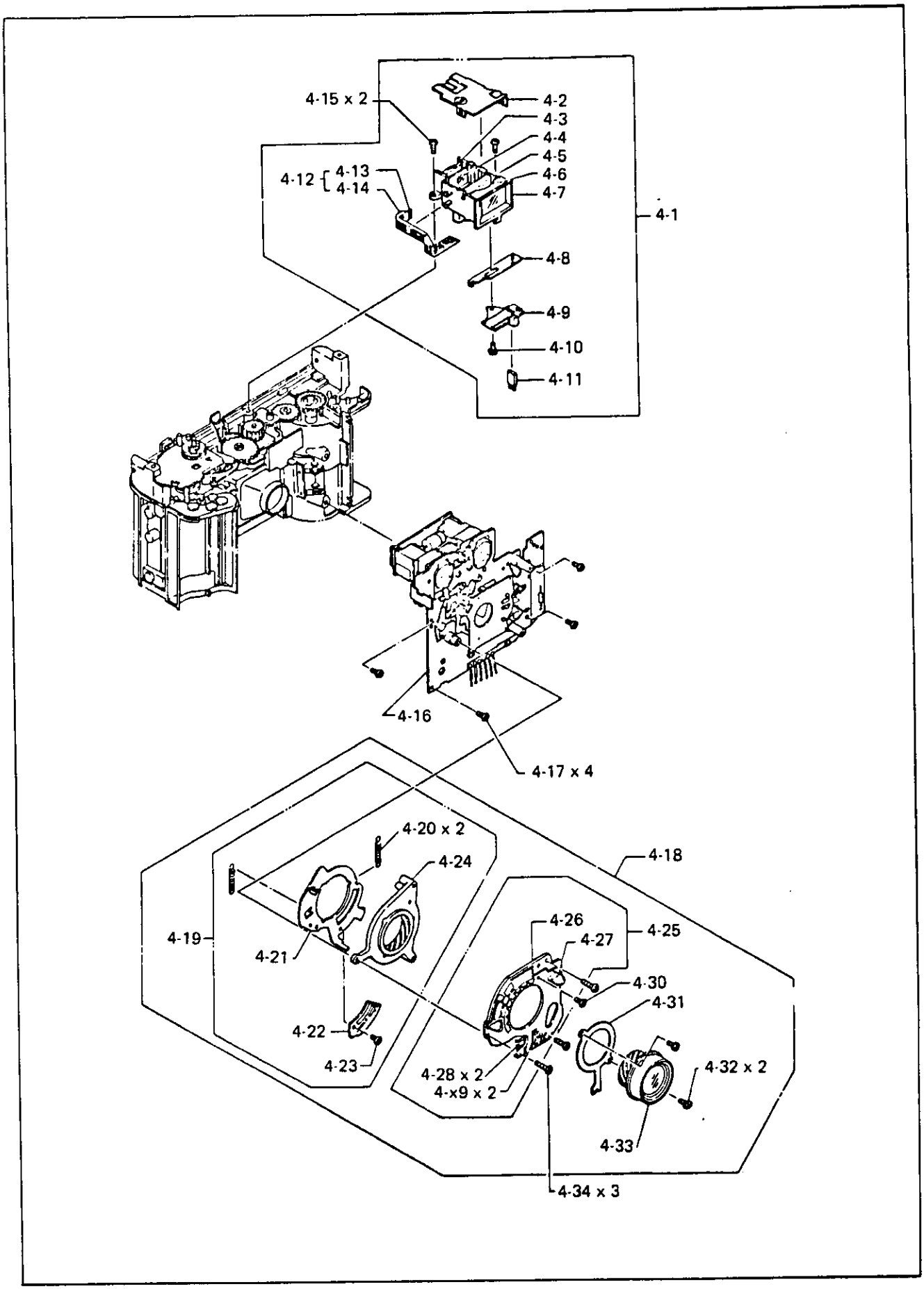
11. Lens assembly (4-18)

- Remove three set screws (4-34).
- Unsolder and disconnect lead wires (7-14 through 7-18), and remove the lens assembly (4-18).

12. Electronic shutter assembly (4-16)

- Remove four set screws (4-17), and remove the electronic shutter assembly (4-16).

  NOTE: Disconnect the related lead wires as required.


4-15 x 2
4-2
4-3
4-4
4-5
4-6
4-7
4-12
4-13
4-14
4-1
4-8
4-9
4-10
4-11
4-16
4-17 x 4
4-20 x 2
4-24
4-18
4-19
4-21
4-26
4-27
4-25
4-30
4-31
4-22
4-23
4-28 x 2
4-x9 x 2
4-32 x 2
4-33
4-34 x 3

13. Exposure counter assembly (5-4)

- Remove the set screw (5-36) and remove the exposure counter assembly (5-4).

14. Base plate (5-12)

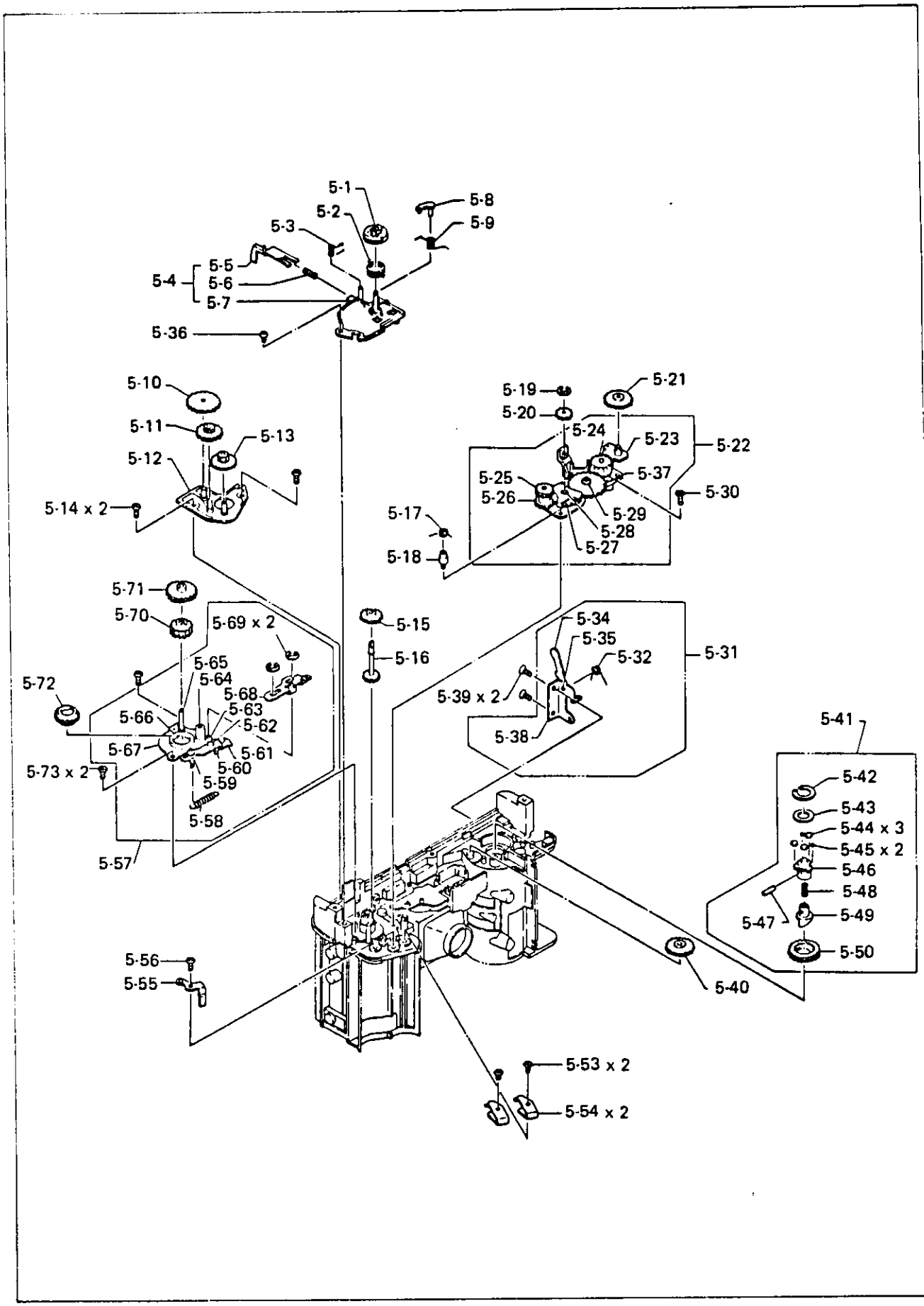
- Remove two set screws (5-14), and remove the base plate (5-12).

15. Gear assembly (5-22)

- Remove the set screw (5-30).
- Remove the screw (5-18), and remove the gear assembly (5-22).

16. Shaft holder assembly (5-57)

- Remove two set screws (5-73), and remove the shaft holder assembly (5-57).

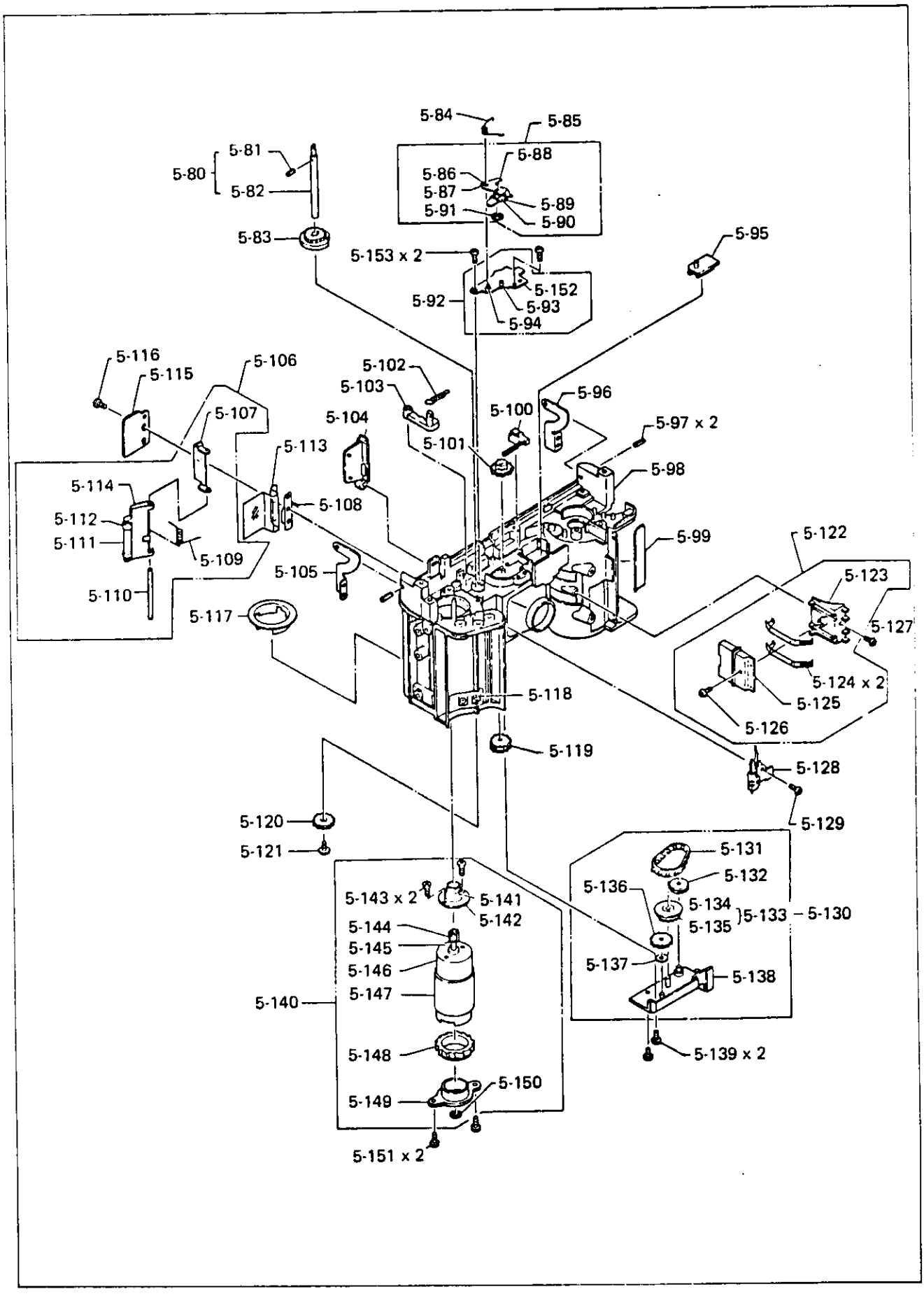

5-1
5-2
5-3
5-4
5-5
5-6
5-7
5-8
5-9
5-36
5-10
5-11
5-12
5-13
5-14 x 2
5-15
5-16
5-17
5-18
5-19
5-20
5-21
5-22
5-23
5-24
5-25
5-26
5-27
5-28
5-29
5-30
5-31
5-32
5-34
5-35
5-37
5-38
5-39 x 2
5-40
5-41
5-42
5-43
5-44 x 3
5-45 x 2
5-46
5-47
5-48
5-49
5-50
5-53 x 2
5-54 x 2
5-55
5-56
5-57
5-58
5-59
5-60
5-61
5-62
5-63
5-64
5-65
5-66
5-67
5-68
5-69 x 2
5-70
5-71
5-72
5-73 x 2

17. Motor assembly (5-140)

- Remove two set screws (5-151).
- Remove the motor assembly (5-140) downward.

18. E-belt assembly (5-130).

- Remove two set screws (5-139), and remove the E-belt assembly (5-130).


5-84
5-85
5-81
5-80
5-82
5-88
5-86
5-87
5-89
5-91
5-90
5-83
5-153 x 2
5-95
5-152
5-92
5-93
5-94
5-116
5-115
5-106
5-102
5-103
5-96
5-107
5-104
5-100
5-97 x 2
5-113
5-101
5-98
5-114
5-112
5-108
5-111
5-109
5-99
5-122
5-105
5-123
5-110
5-117
5-127
5-124 x 2
5-125
5-118
5-126
5-119
5-128
5-129
5-120
5-121
5-131
5-132
5-136
5-134
5-133
5-130
5-143 x 2
5-141
5-135
5-142
5-144
5-145
5-137
5-138
5-146
5-147
5-140
5-148
5-139 x 2
5-150
5-149
5-151 x 2

Ⅳ. REASSEMBLY AND ADJUSTMENT

1. Automatic film speed setter assembly (5-122)

- ○ Place the automatic film speed setter assembly (5-122) in the position on the chassis (5-98), and secure it with the set screw (5-127).
- ○ Check that the automatic film speed setter assembly has been installed correctly without floating or tilting.

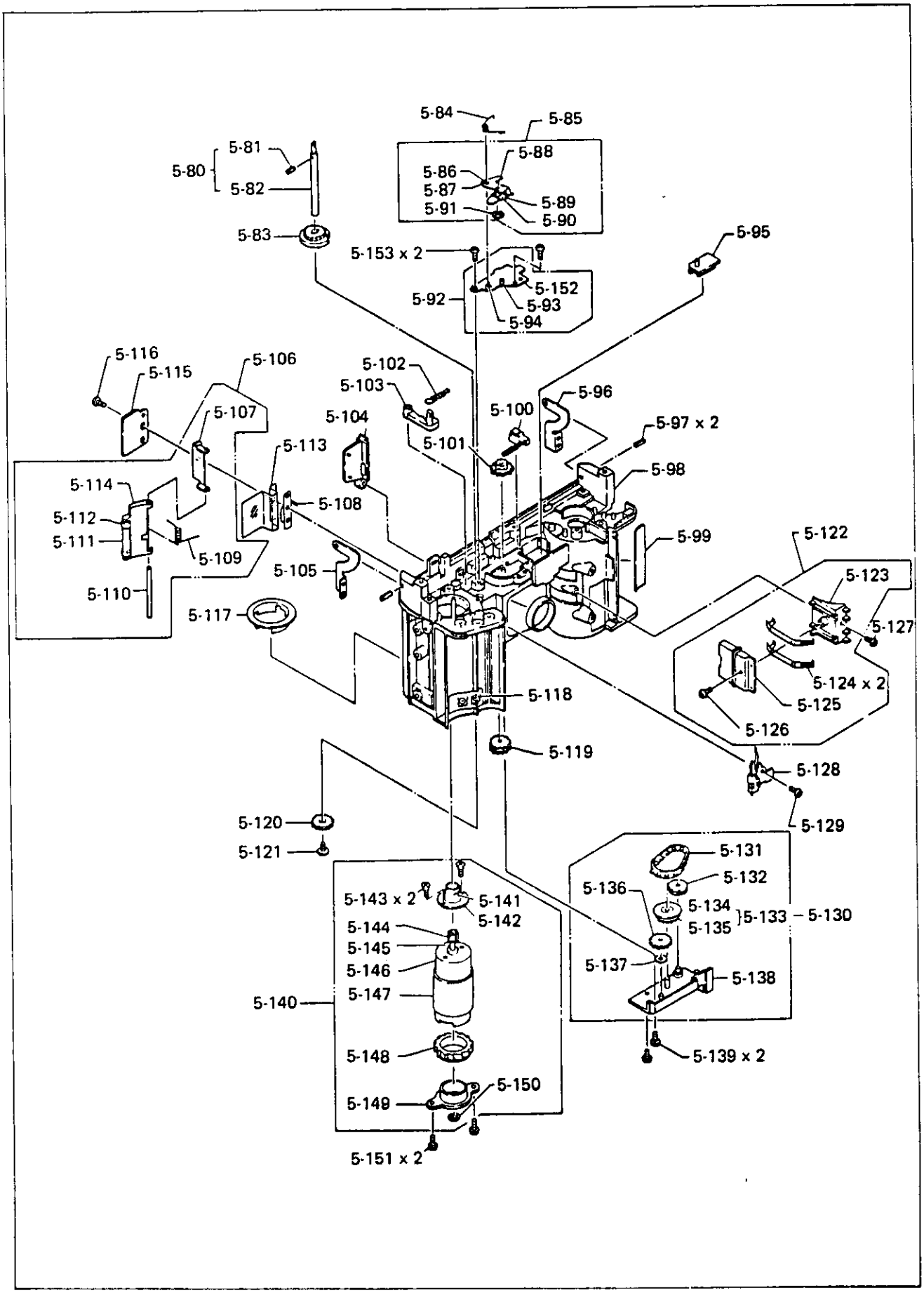
2. Motor assembly (5-140)

- ○ Fit the collar (5-117) to the motor assembly (5-140) through the chassis (5-98).
- ○ Install the motor assembly (5-140) with two set screws (5-151).

3. Shaft assembly (5-80)

- ○ Apply silicon grease (G30M) slightly to the opening on the chassis (5-98).
- ○ Install the cam (5-83) and shaft assembly (5-80).
- ○ Apply the gear (5-120) to the shaft, and secure it with the set screw (5-121).

NOTE: Make sure that the shaft assembly (5-80) turns smoothly.


5-84
5-85
5-81
5-80
5-82
5-88
5-86
5-87
5-89
5-91
5-90
5-83
5-153 x 2
5-95
5-152
5-92
5-93
5-94
5-116
5-115
5-106
5-102
5-103
5-96
5-107
5-104
5-100
5-97 x 2
5-113
5-101
5-98
5-114
5-108
5-112
5-111
5-109
5-99
5-122
5-105
5-123
5-110
5-117
5-127
5-124 x 2
5-125
5-118
5-126
5-119
5-128
5-129
5-120
5-121
5-131
5-132
5-136
5-134
5-133
5-130
5-135
5-143 x 2
5-141
5-142
5-144
5-145
5-137
5-146
5-138
5-147
5-140
5-148
5-139 x 2
5-150
5-149
5-151 x 2

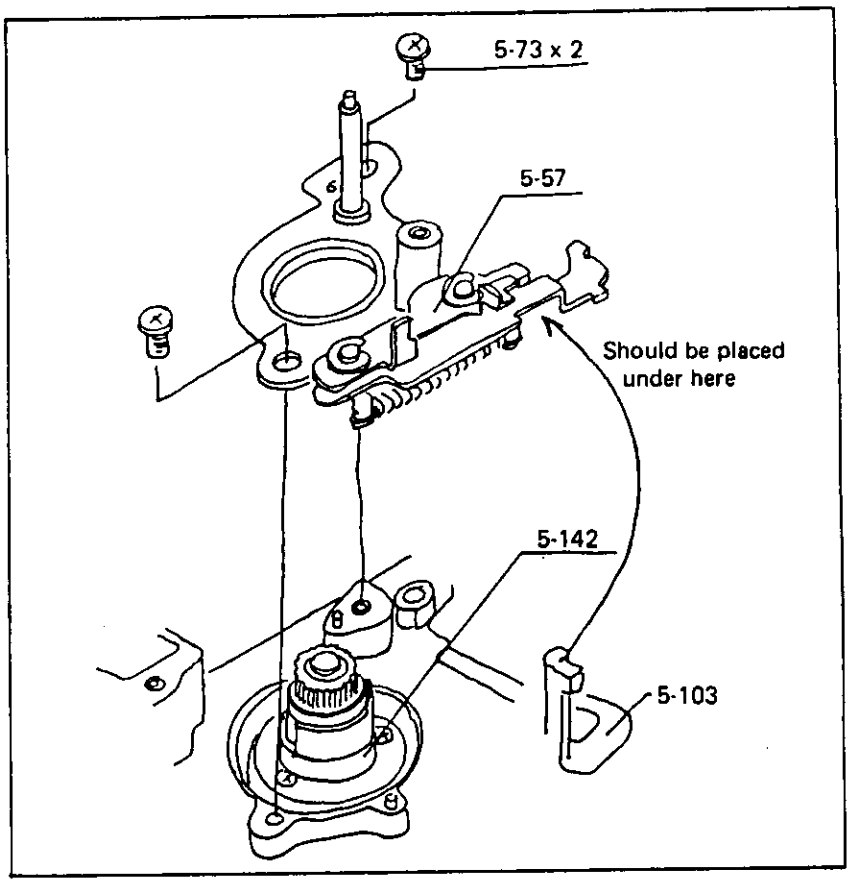
4. Shaft holder assembly (5-57)

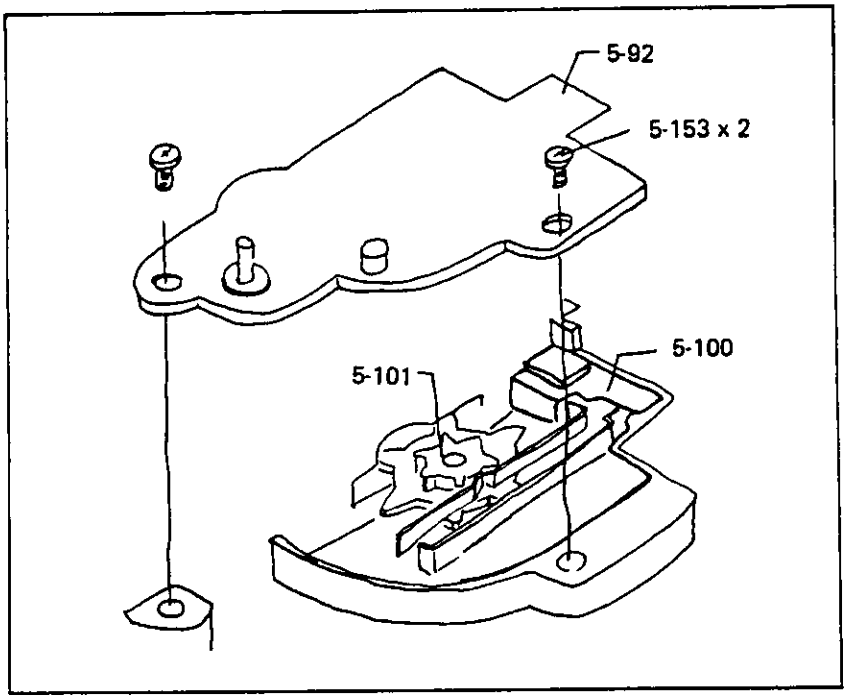
- ○ Apply Losoid grease (6308/1-G) to the spool holder (5-142).
- ○ Fitting the positioning pin, place the shaft holder assembly (5-57) in the position on the chassis (5-98).
- ○ Secure the shaft holder assembly (5-57) with two set screws (5-73).

5. Ss switch assembly (5-100)

- ○ Install the film gear (5-101) on the chassis (5-98).
- ○ Install the Ss switch assembly (5-100) on the chassis (5-98).
- ○ Install the base plate assembly (5-92) with two set screws (5-153).

NOTE: Be careful to keep the contacts clean.
Make sure that ON-OFF switching is made correctly across both terminals of the Ss switch assembly (5-100) in response to the motions of the film gear (5-101).


5-73 x 2
5-57
Should be placed
under here
5-142
5-103

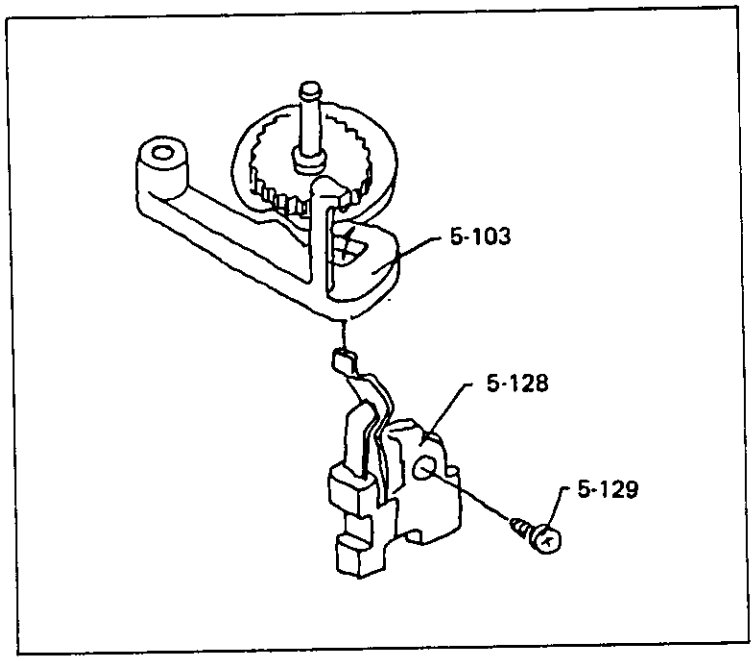

5-92
5-153 x 2
5-100
5-101

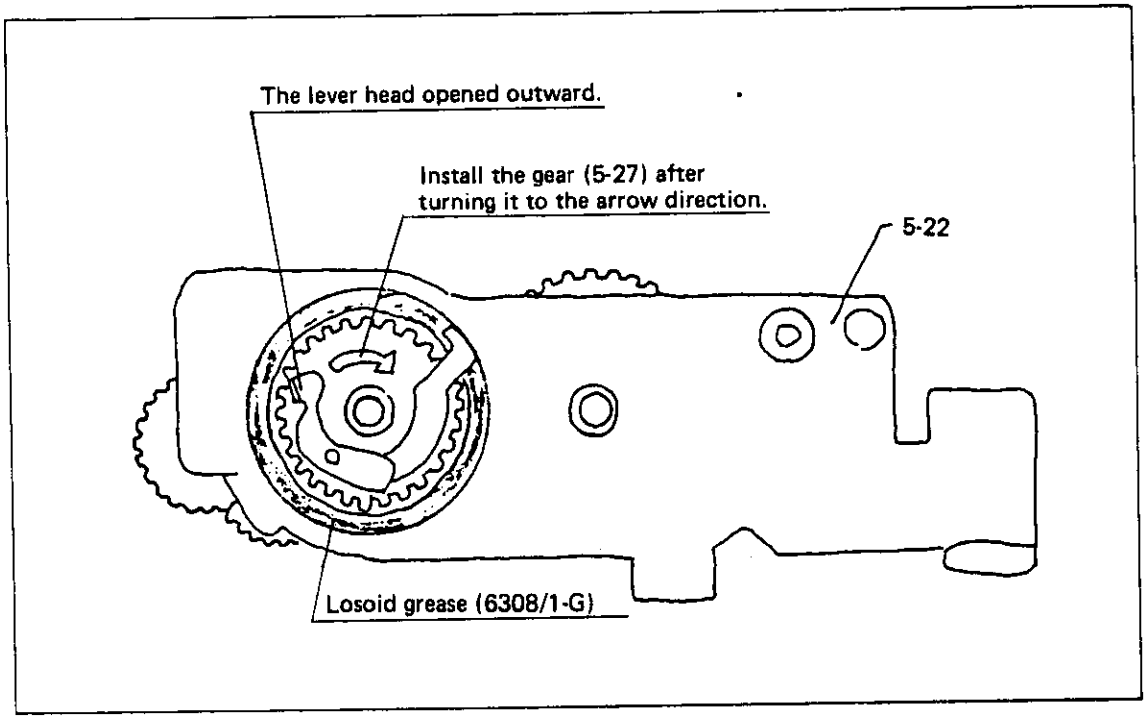
6. So switch assembly (5-128)

- Make sure that the switch contacts are clean and not deformed.
- Install the So switch assembly (5-128) with the set screw (5-129) as shown in the right hand figure.

7. Gear assembly (5-22)

- Apply silicon grease (G30M) to the shaft on the gear assembly, and install the set lever assembly (5-85) on the shaft.
- Install the spring (5-84).
- Set and install the grear assembly (5-22) as shown in the right hand figure. In this case, install the gear assembly with the lever head opened outward.
- Make sure that the soldered portion of the Ss switch assembly (5-100) is isolated from the base plate (5-23) with insulator.


5-103
5-128
5-129

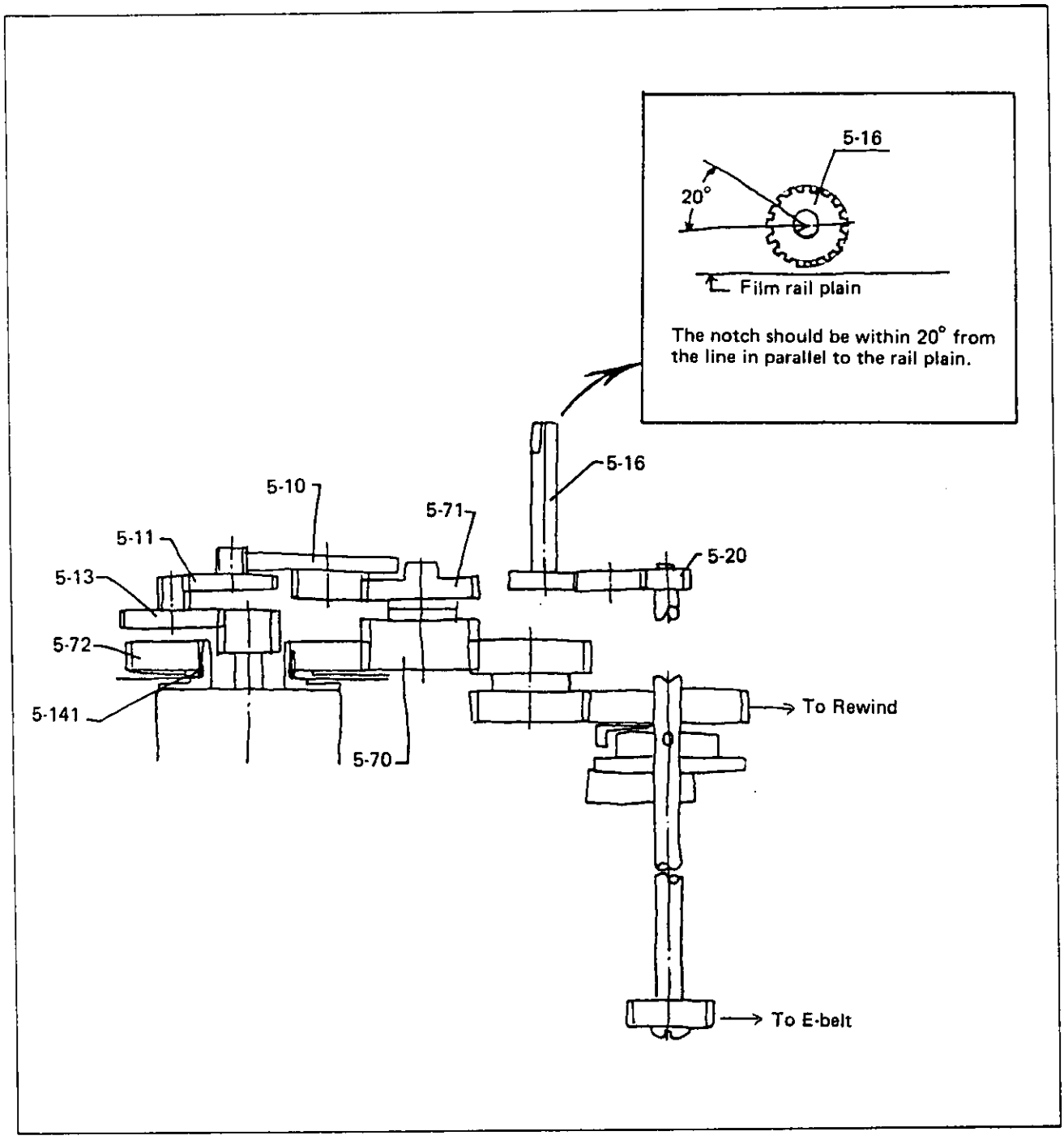

The lever head opened outward.
Install the gear (5-27) after turning it to the arrow direction.
5-22
Losoid grease (6308/1-G)

8. Base plate (5-12)

- Install the spring (5-17)
- Fit the projected portion of the friction plate (5-141) into the notch on the spool gear (5-72).
- Install the counter gear (5-20) with the E-clip (5-19).
- Apply silicon grease (G30M) to the shaft portion of the No. 5 gear (5-70), and install it.
- Apply silicon grease (G30M) to the shaft holder portion of the drive gear (5-16), and install it by positioning the notched portion used to feed the exposure counter.
- Apply silicon grease (G30M) to the gear sliding surface of the base plate (5-12).
- Now, install the base plate (5-12) with two set screws (5-73).

9. Exposure counter assembly (5-4)

- Apply silicon grease (G30M) to the shaft portion of each gear.
- Install the No. 2 gear (5-13), No. 3 gear (5-11) and No. 5 gear (5-71).
- Install the No. 4 gear (5-10).
- Install the exposure counter assembly (5-4) with the set screw (5-36).
- Install the spring (5-3).


5-16
20°
Film rail plain
The notch should be within 20° from the line in parallel to the rail plain.
5-16
5-10
5-71
5-11
5-20
5-13
5-72
5-141
5-70
To Rewind
To E-belt

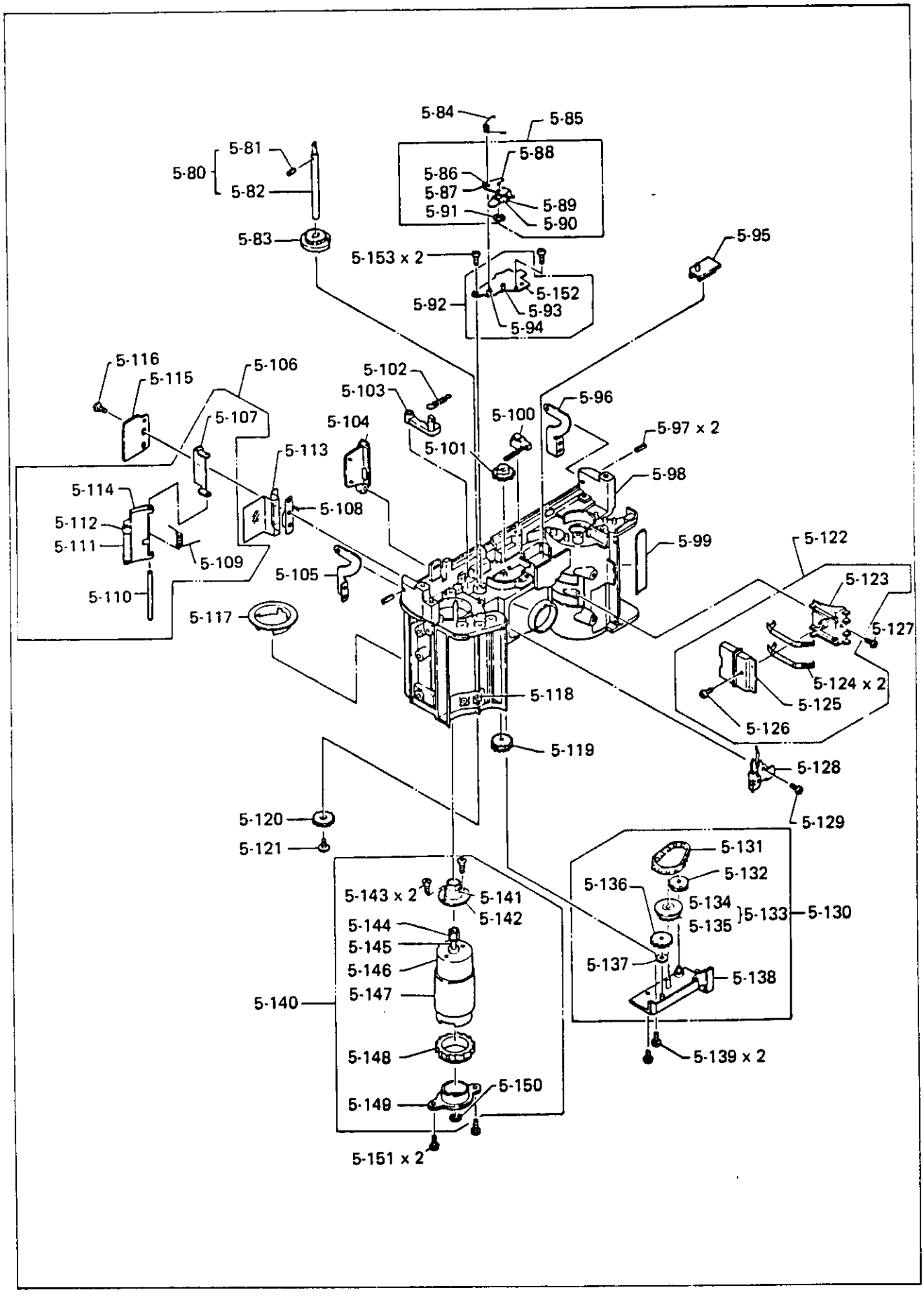
10. E-belt assembly (5-130)

- Apply Losoid grease (6308/1-G) to the shaft portion of the gear (5-119), and install the gear.
- Combine the E-belt assembly (5-130) with the gear (5-119), and install them with the set screw (5-139).
- Turn the gear (5-120) with your hand, and make sure that the E-belt (5-131) turns smoothly.

11. Supporter assembly (5-106) and door (5-104)

- Make sure that the door (5-104) is caused to move smoothly by the leaf spring (5-108).

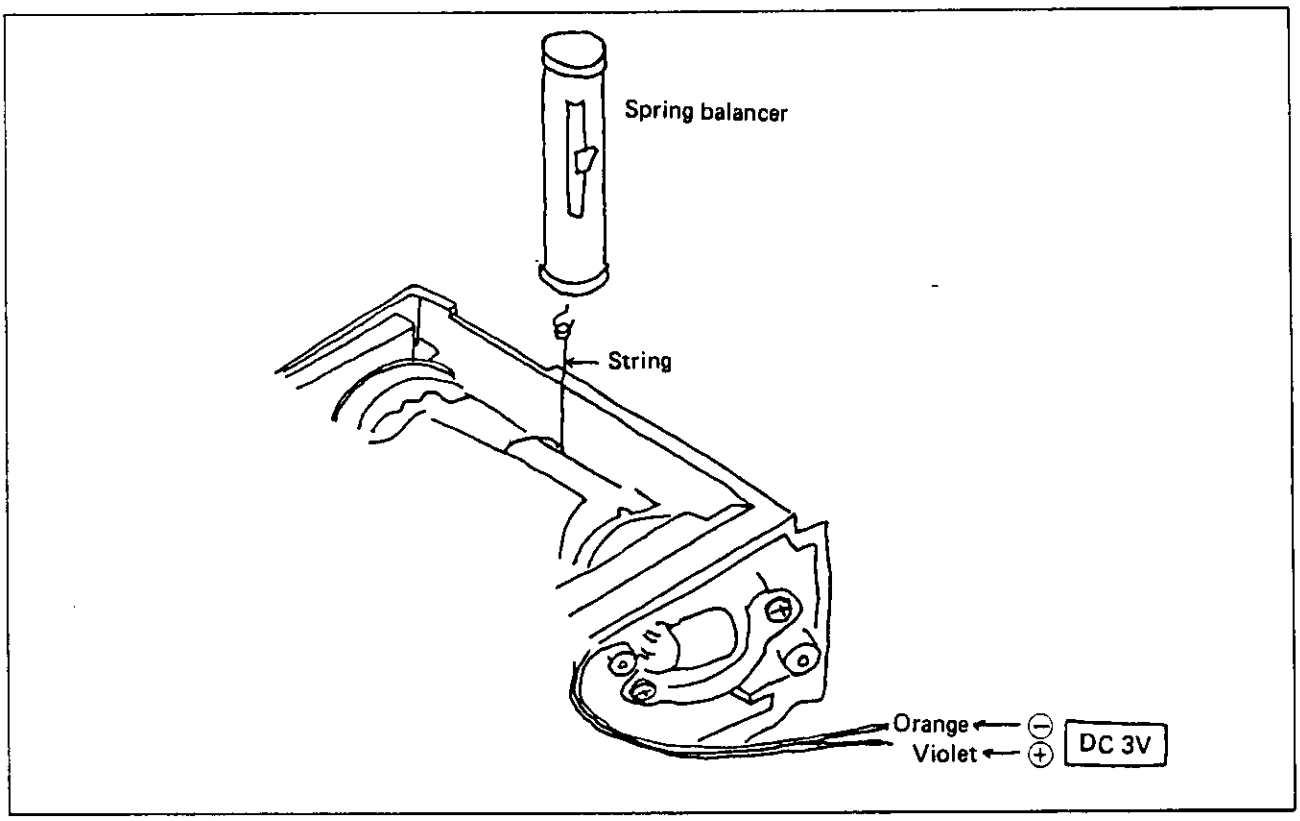
  NOTE: When the end of film hooks with the door, the door moves so that the film is advanced smoothly.
- Make sure that the roller (5-111) of the supporter assembly (5-106) turns smoothly.
- Make sure that the film holder (5-114) moves smoothly.

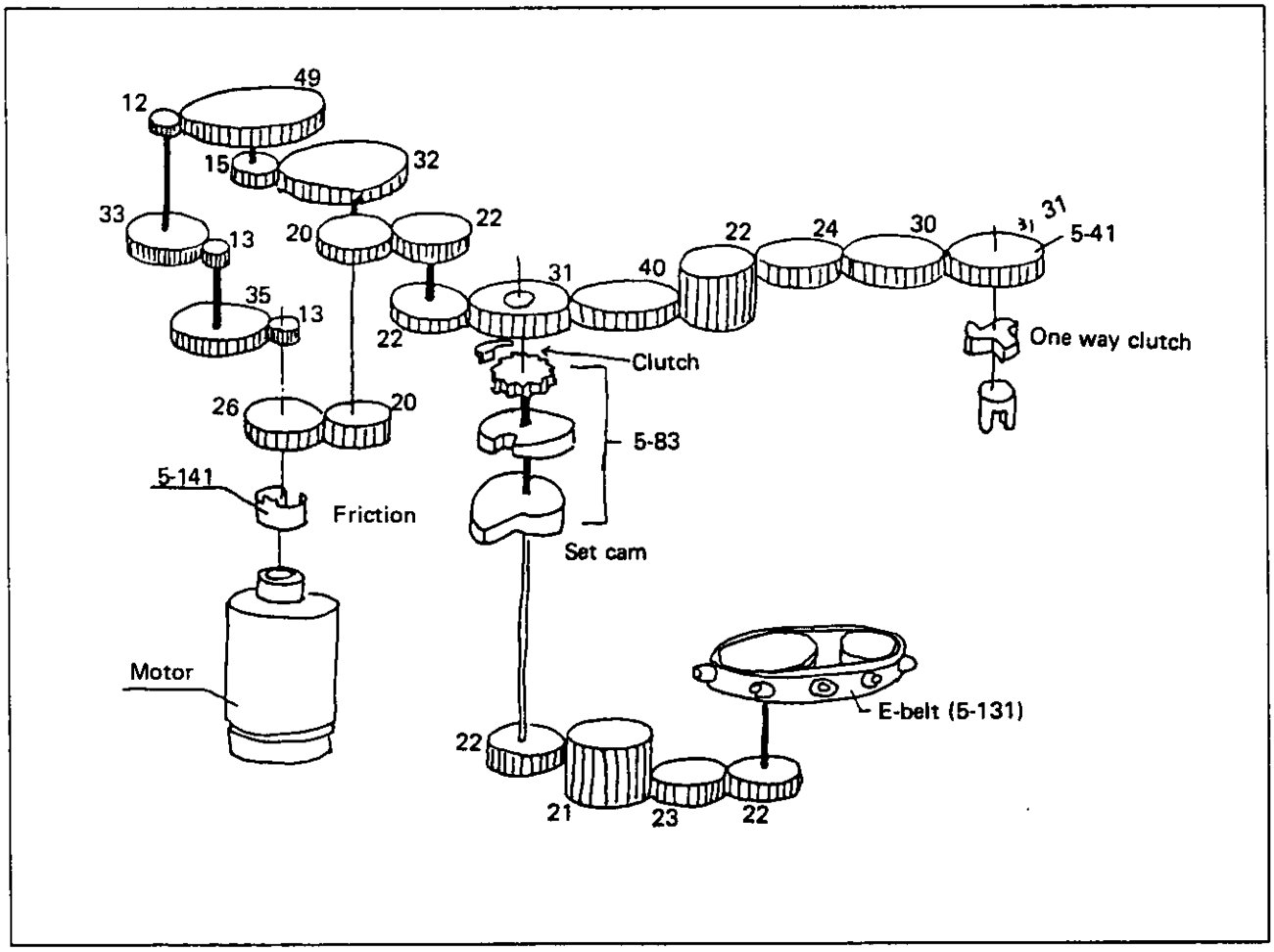

5-84
5-85
5-80
5-81
5-82
5-88
5-86
5-87
5-89
5-91
5-90
5-83
5-153 x 2
5-95
5-152
5-92
5-93
5-94
5-116
5-115
5-106
5-102
5-103
5-96
5-107
5-104
5-100
5-97 x 2
5-113
5-101
5-98
5-114
5-108
5-112
5-111
5-109
5-99
5-122
5-105
5-123
5-110
5-117
5-127
5-124 x 2
5-125
5-118
5-126
5-119
5-128
5-129
5-120
5-121
5-131
5-132
5-143 x 2
5-141
5-136
5-134
5-142
5-133
5-130
5-144
5-135
5-145
5-137
5-146
5-138
5-147
5-140
5-148
5-139 x 2
5-150
5-149
5-151 x 2

12. Adjustment of spool friction

- Wind a piece of string around the motor spool, apply DC 3V across the violet ⊕ and orange ⊖ lead wires of the motor to turn the motor, and thus, measure torque with a spring balancer.

  The friction should be 210 to 270 grams.
- Because of the clutch system, rewind friction can be found from the spool friction.
- When adjustment is required, adjust slipping force between the friction plate (5-141) and spool holder (5-142).
- Apply Losoid grease (6308/1-G) to the sliding surface slightly excessively.

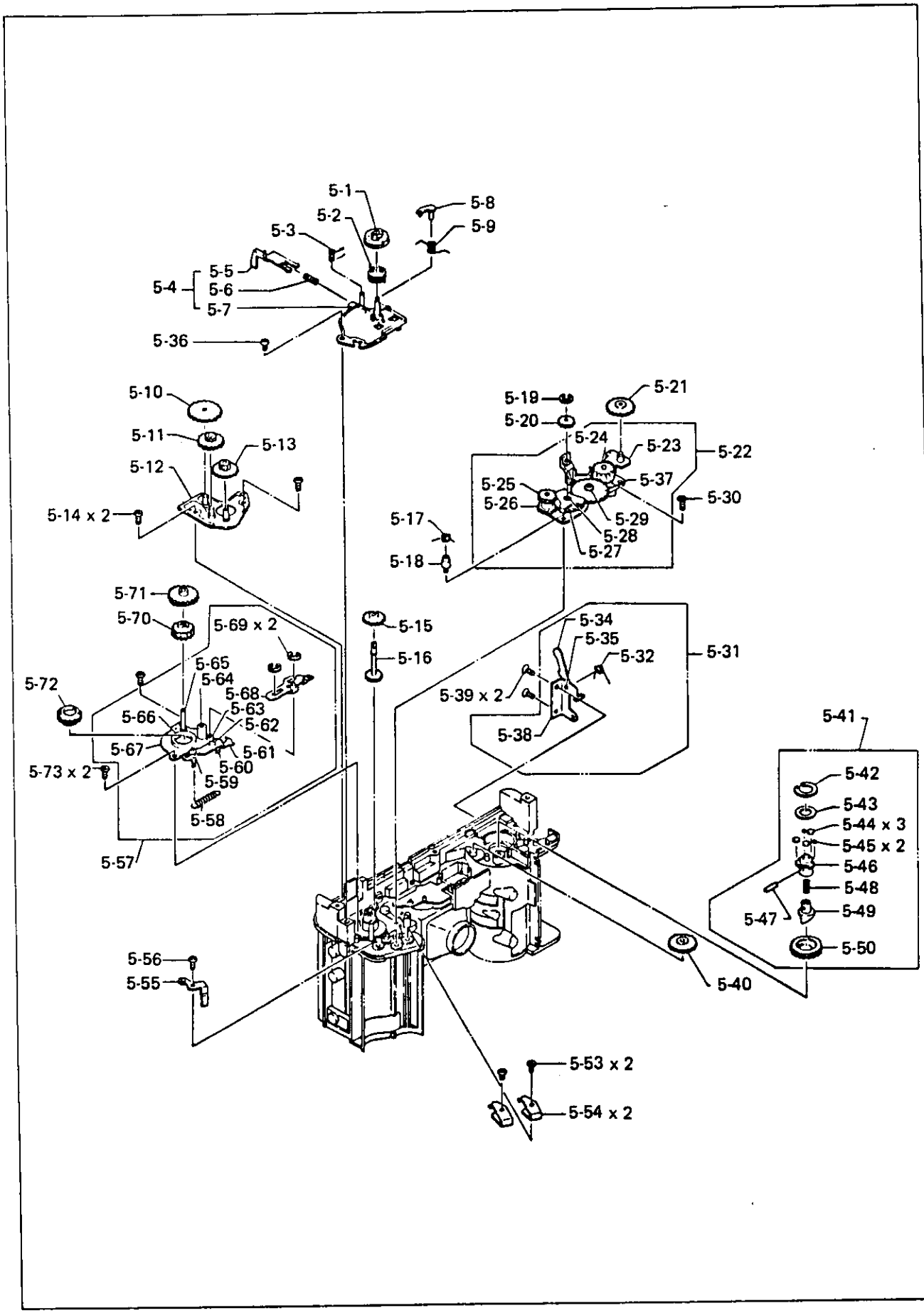

Spring balancer
String
Orange
Violet
DC 3V


49
12
15
32
33
13
20
22
22
24
30
31
31
5-41
35
13
31
40
22
Clutch
One way clutch
26
20
5-83
5-141
Friction
Set cam
Motor
E-belt (5-131)
22
21
23
22

13. Greasing

- Apply silicon grease (G30M) to the sliding surface on the interlock plate (5-5) of the exposure counter assembly (5-4).
- Apply Losoid grease (6308/1-G) to the gear shaft holder of the E-belt assembly (5-130).

  NOTE: Be careful not to apply grease to the E-belt (5-131) itself.
- Apply silicon grease (G30M) to the sliding surface of the shaft holder assembly (5-57).
- Apply silicon grease (G30M) to the sliding surface on the film rewinder assembly (5-41) where the rewinder assembly comes into contact with the chassis.
- Apply Losoid grease (6308/1-G) to the shaft holding portions of the gears (5-40) and (5-21).


5-1
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5-13
5-14 x 2
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5-71
5-70
5-69 x 2
5-72
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5-60
5-73 x 2
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5-39 x 2
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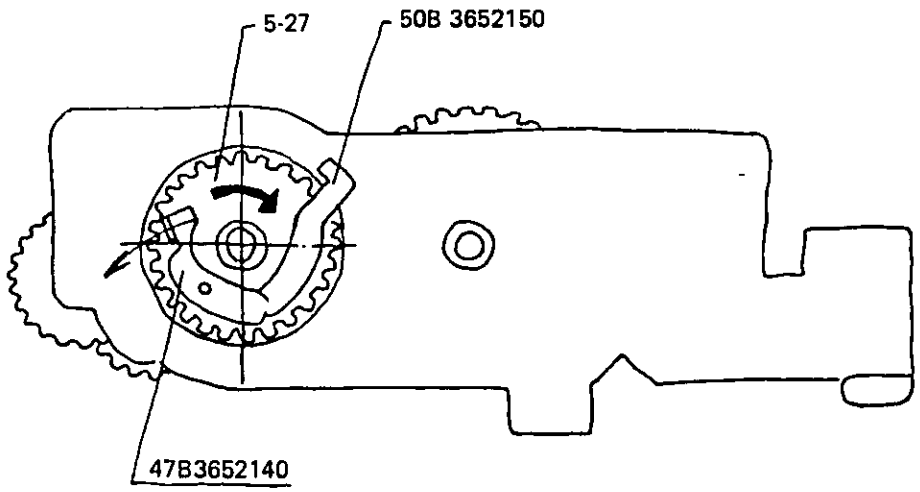
5-42
5-43
5-44 x 3
5-45 x 2
5-46
5-48
5-47
5-49
5-50
5-40
5-56
5-55
5-53 x 2
5-54 x 2

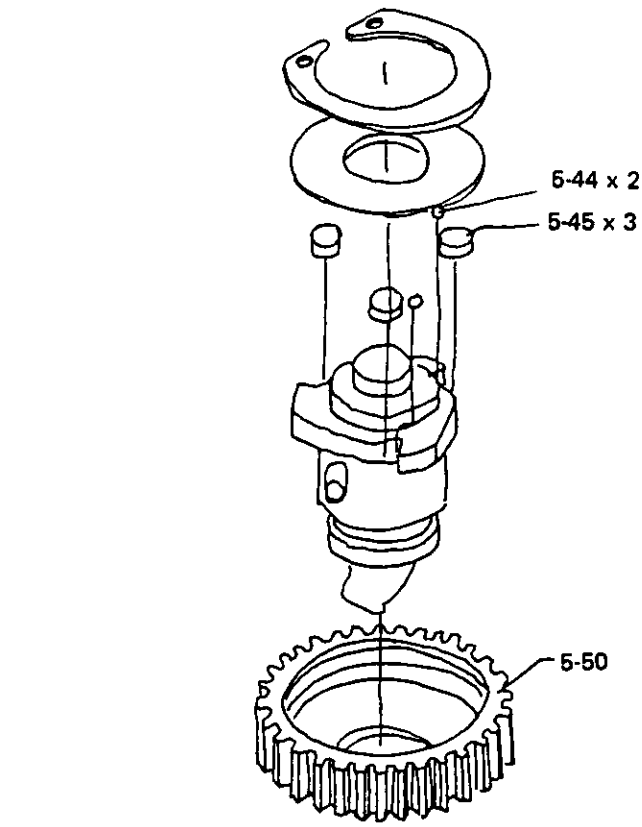
14. Gear assembly (5-22)

- Apply Losoid grease (6308/1-G) to the shaft holding portion.
- Make sure that the leaf spring (50B3652150) and hook lever (47B3652140) of the gear assembly (5-27) move toward the arrow directions as shown in the right hand figure when the gear turns.

15. Film rewinder assembly (5-41)

- Apply Losoid grease (6308/1-G) to the sliding surface of the film rewinder assembly, two steel balls (5-44) and three rollers (5-45).
- Make sure that the gear (5-50) and shaft (5-49) turn lightly and independently when the film rewinder assembly turn to rewind the film.


5-27
50B 3652150
47B3652140


5-44 x 2
5-45 x 3
5-50

16. Viewfinder assembly (4-1)

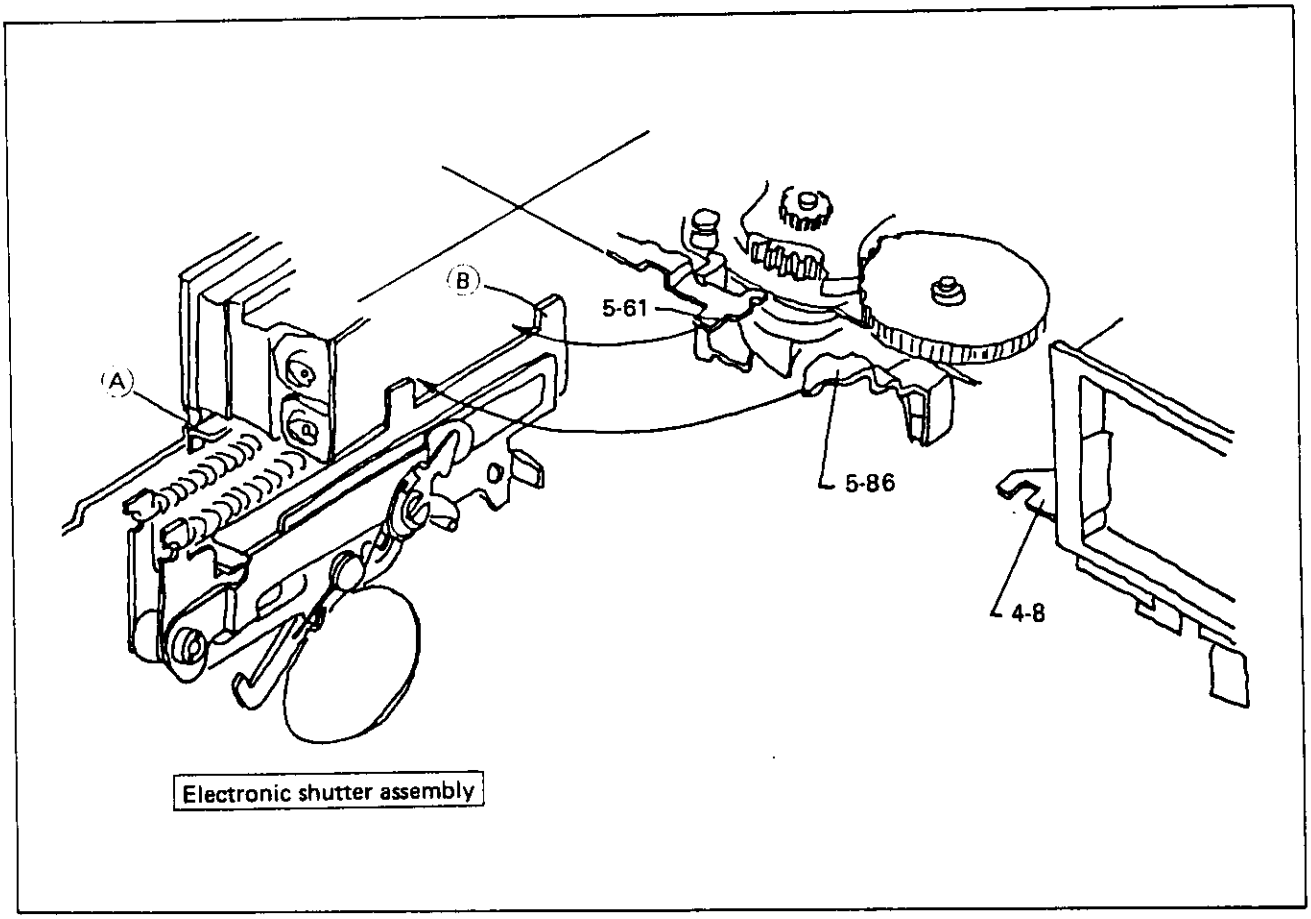
- Combine the viewfinder assembly (4-1) carefully so that lead wires (7-19 and 7-20) of the LED are not held between parts.
- Install the viewfinder assembly (4-1) with two set screws (4-15).
- Make sure that the aperture plate (4-8) moves smoothly.

17. Electronic shutter assembly (4-16)

- Push down the release lever to release the shutter.
- Set the electronic shutter assembly so that the set lever assembly (5-85) is dropped deeply into the cam (5-83).
- Match lever (A) of the electronic shutter assembly with the notch on the aperture plate (4-8), and match the set lever (5-86) and release plate (5-61) with the projection on the lever (B) of the electronic shutter assembly.
- Make sure that two contacts (5-124) are not deformed, and then, combine the electronic shutter assembly with the chassis.

  NOTE: Handle the contacts (5-124) particularly carefully.
  They are pressure-contacts.
- Tighten four set screws (4-17) to secure the electronic shutter assembly (4-16).

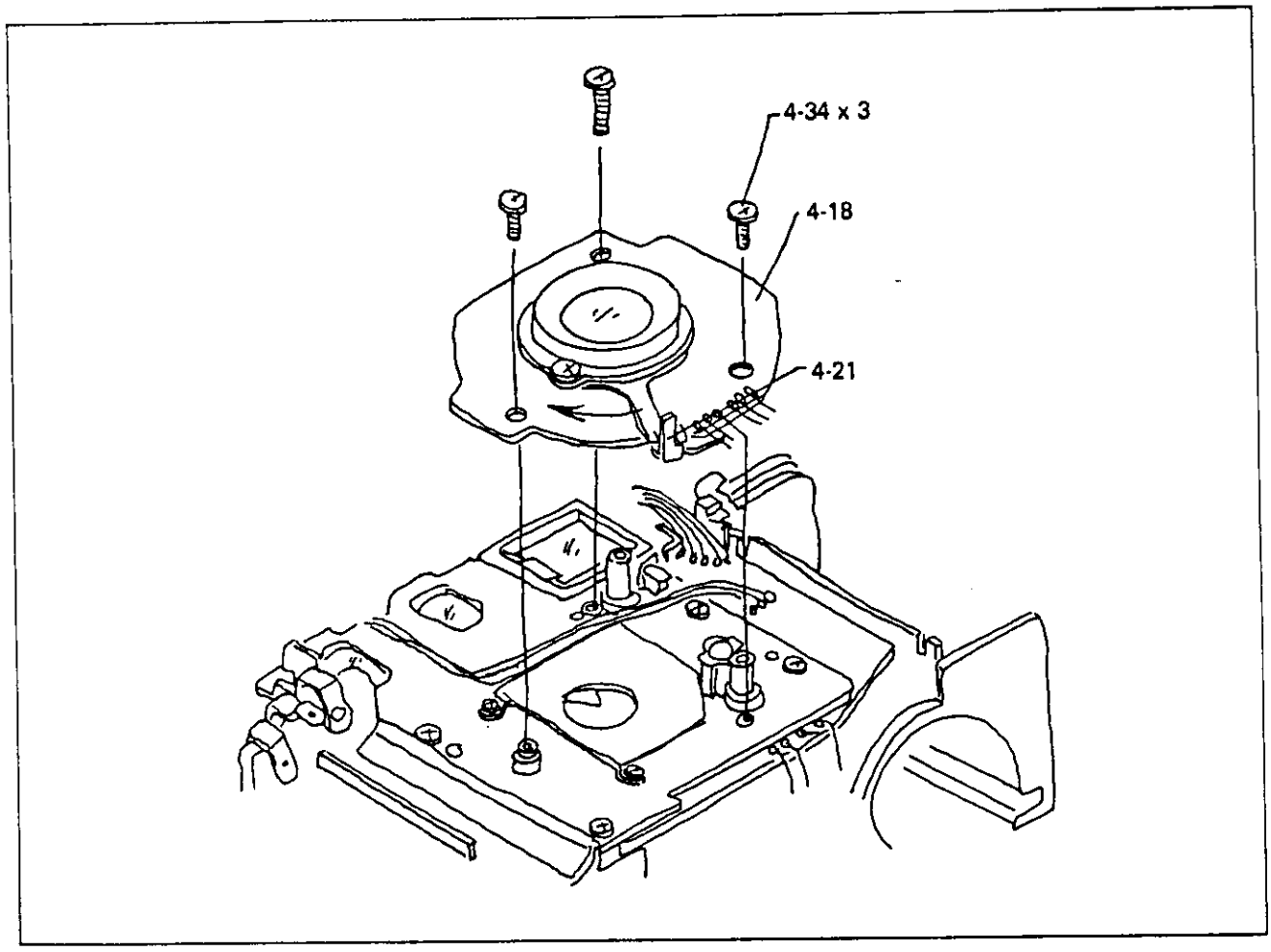
  NOTE: When installing the electronic shutter assembly, be careful not to touch the auto-focus system.



Electronic shutter assembly

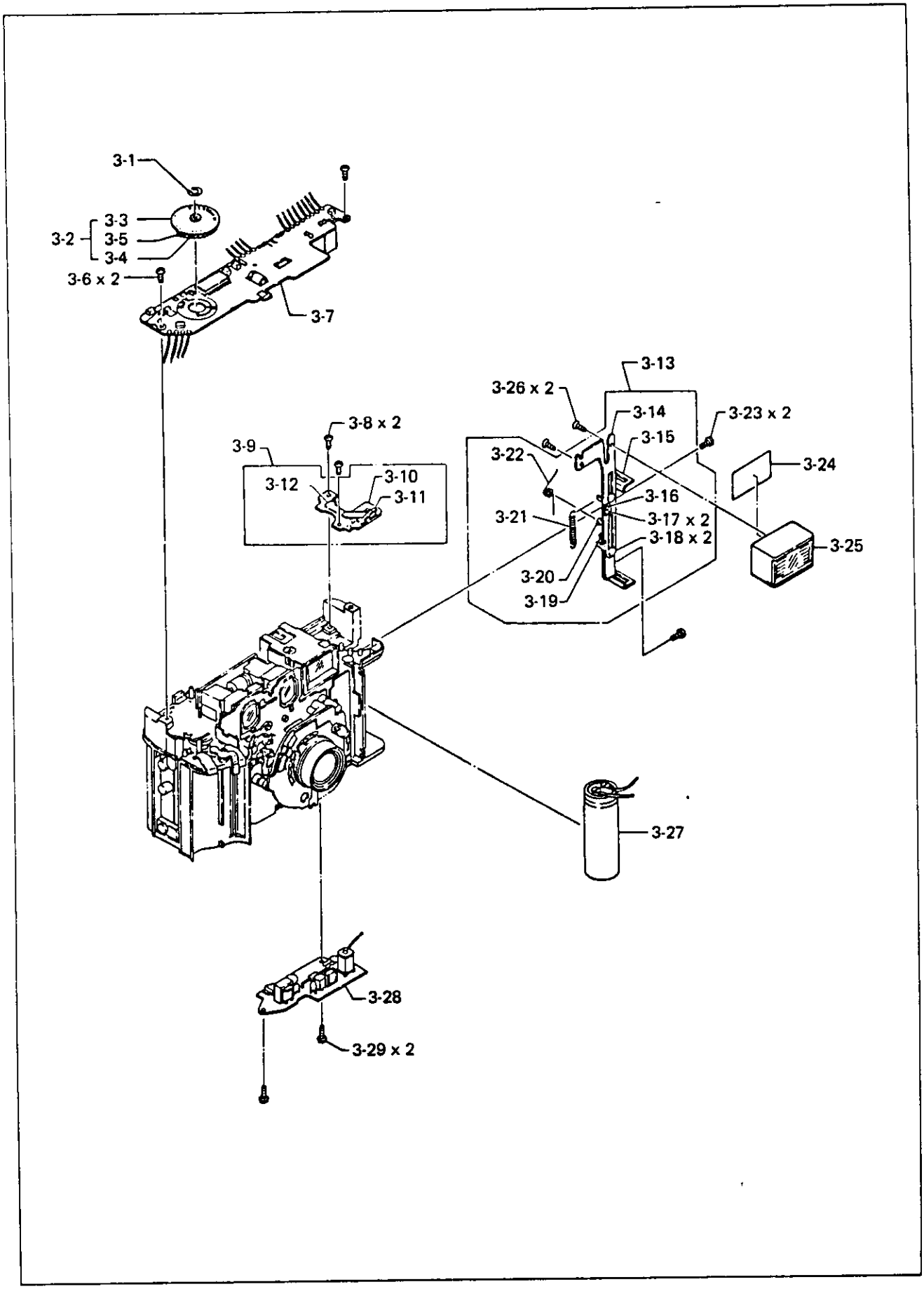
18. Lens assembly (4-18)

- Turn the focusing interlock plate (4-31) clockwise, and make sure that it turns smoothly and is caused to reset counterclockwise by two springs (4-20).
- Turn the cam plate (4-21) clockwise and install the lens assembly on the chassis carefully so that it does not ride on the stop claw of the electronic shutter assembly.
- Tighten three set screws (4-34) to secure the lens assembly.


4-34 x 3
4-18
4-21

19. Flash assembly

- Install the flash circuit assembly (3-28) with two set screws (3-29).
- Install the capacitor (3-27) with a piece of double-sided adhesive tape correctly so that the terminal does not come into contact with the strap lug (3-15).
- Arrange the lead wires neatly.
- Solder and connect the lead wire (7-22) to the flash circuit assembly (3-28).
- Properly shape up the flat cable (7-21).
- Install the switch assembly (3-9) with two set screws (3-8) carefully so that the laad wires will not be held between parts.
- Install the flash lamphead assembly (3-25) with two set screws (3-26).


3-1
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3-6 x 2
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3-8 x 2
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3-26 x 2
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3-23 x 2
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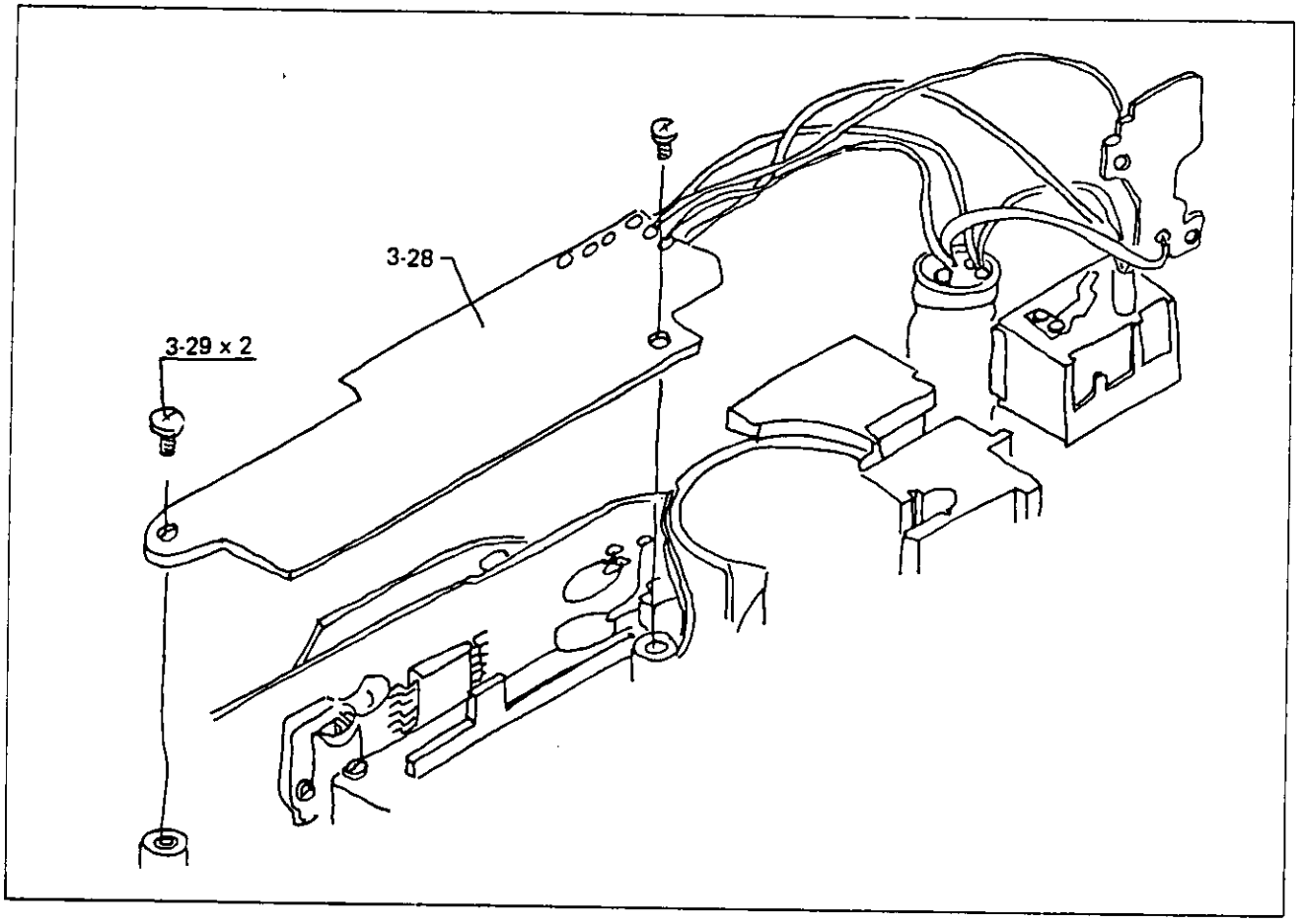
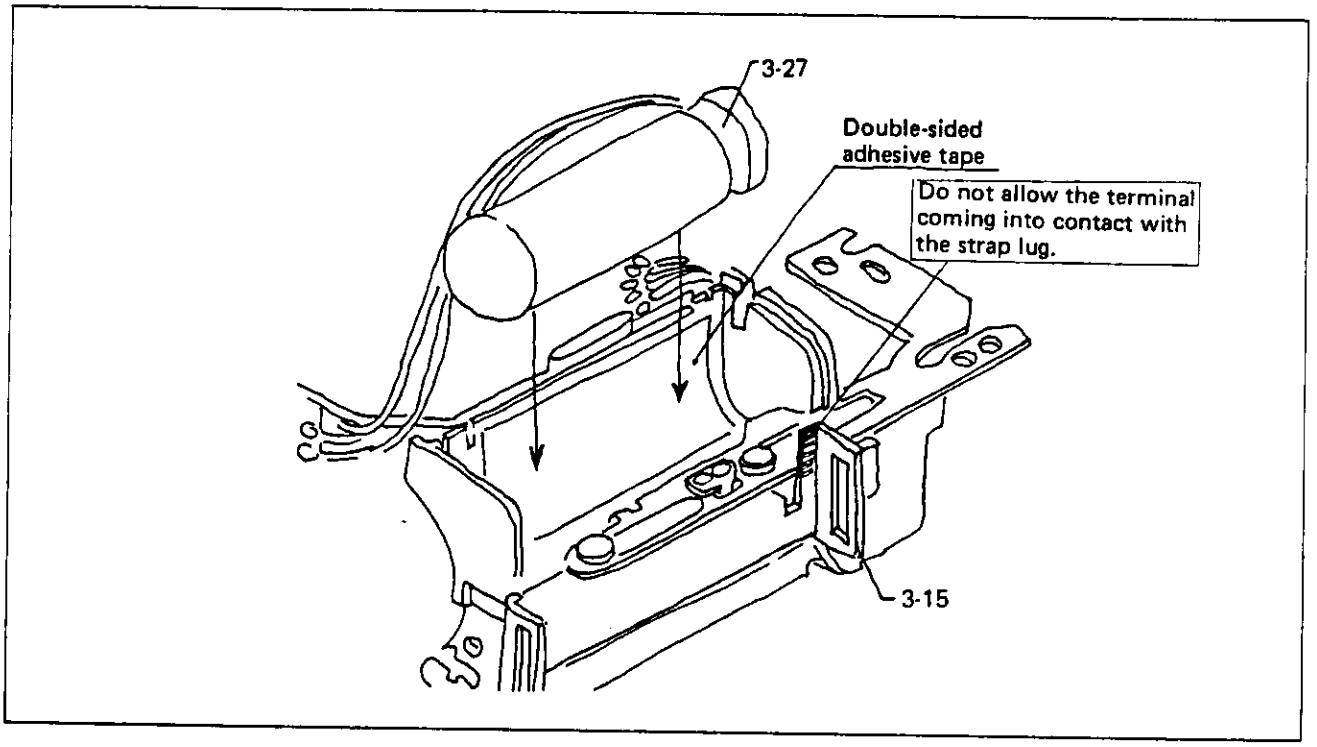
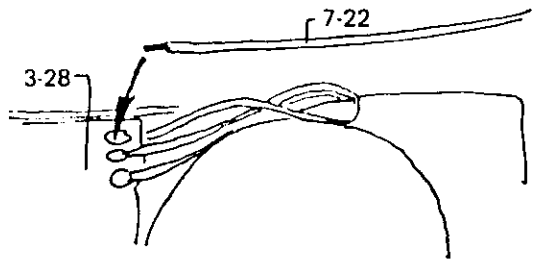
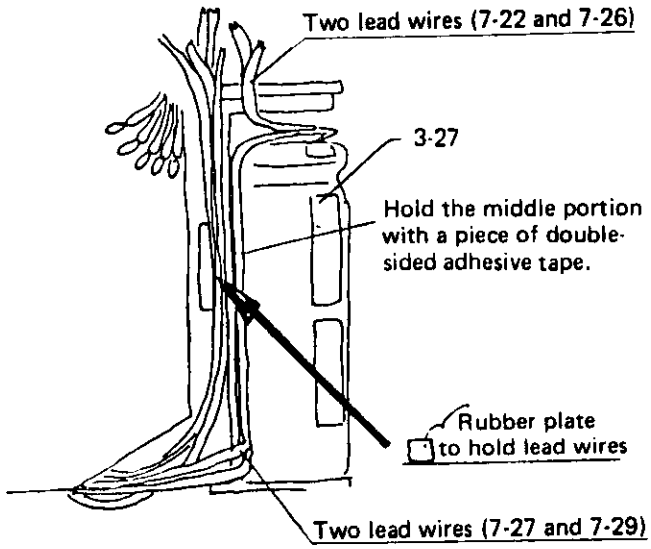
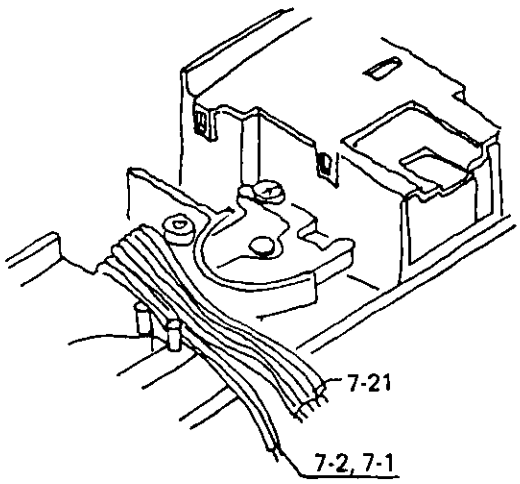
3-18 x 2
3-25
3-20
3-19
3-27
3-28
3-29 x 2

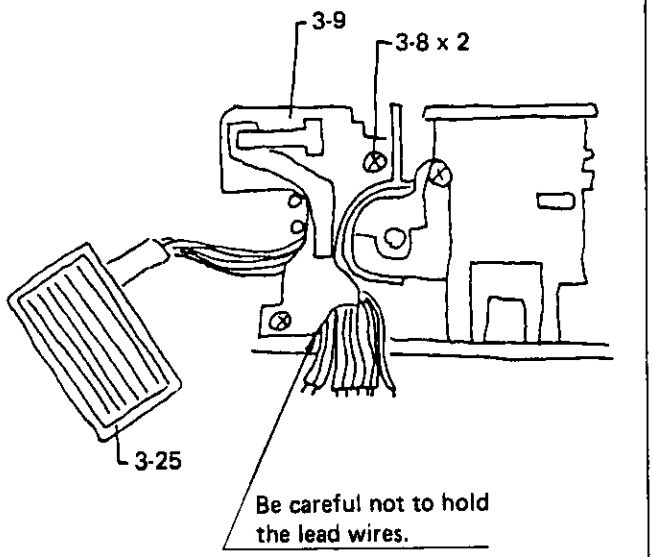

3-28
3-29 x 2


3-27
Double-sided adhesive tape
Do not allow the terminal coming into contact with the strap lug.
3-15


7-22
3-28

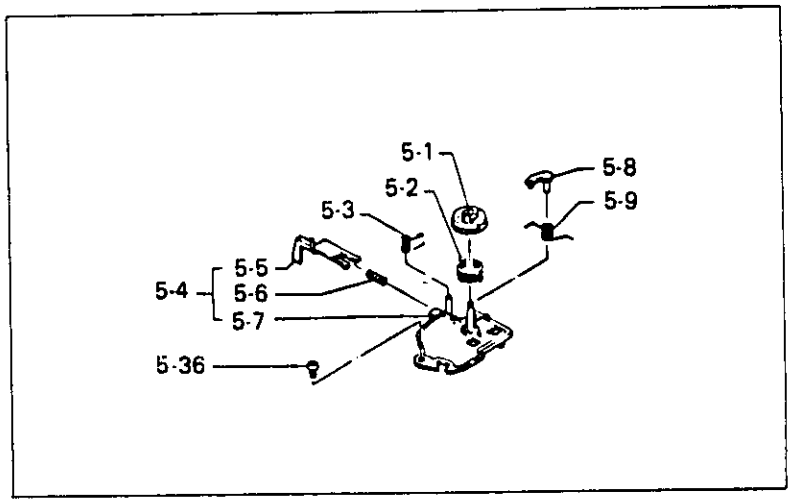

Two lead wires (7-22 and 7-26)
3-27
Hold the middle portion with a piece of double-sided adhesive tape.
Rubber plate to hold lead wires
Two lead wires (7-27 and 7-29)


7-21
7-2, 7-1


3-9
3-8 x 2
3-25
Be careful not to hold the lead wires.

20. MC board assembly (3-7)

- Apply the spring (5-2) to the exposure counter drum (5-1) and turn the spring one time.
- Apply the spring (5-9) to the release lever (5-8), and install the release lever.
- Install the MC board assembly (3-7) with two set screws (3-6).
- Install the exposure counter dial assembly (3-2).
- Clean the circuit pattern with Freon.
- Check the contact (3-5) for its height and shape.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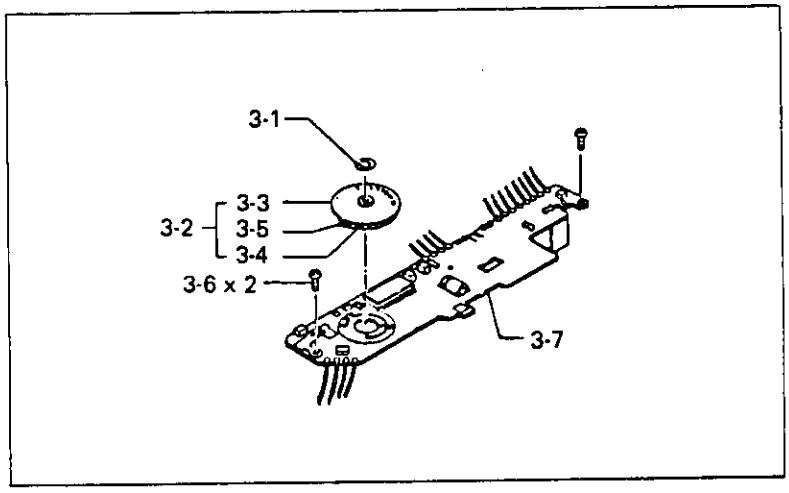
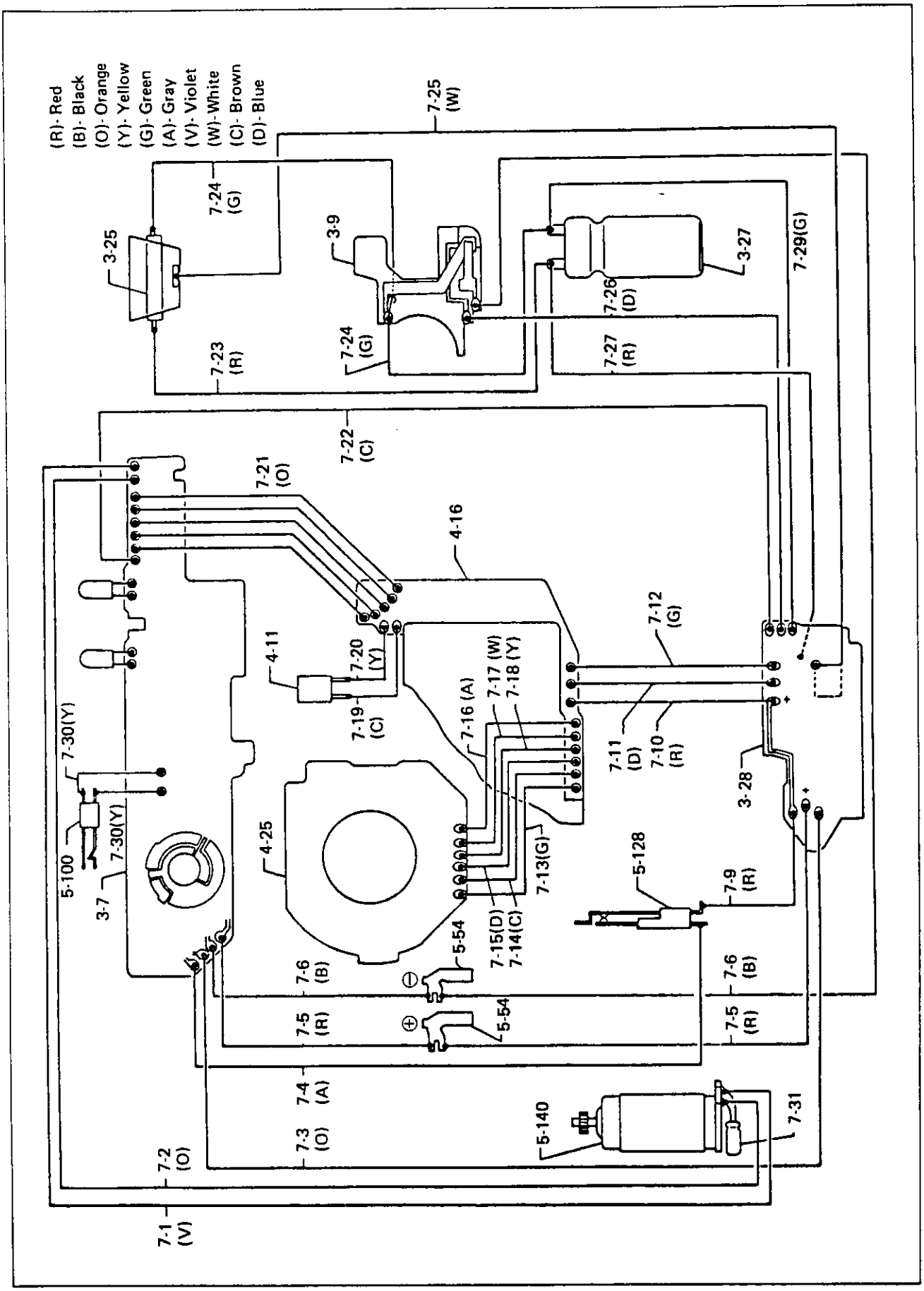
5-9
5-36


3-1
3-2
3-3
3-5
3-4
3-6 x 2
3-7

21. Wiring

- Solder and connect each lead wire correctly and carefully.
- Carefully keep the soldering iron in the proper temperature.
- Be careful not to melt lead wire cover with the soldering iron.
- After ending the soldering, clean the space between terminals with isopropyl alcohol or Freon, and make sure that terminals are not short-circuited with solder.

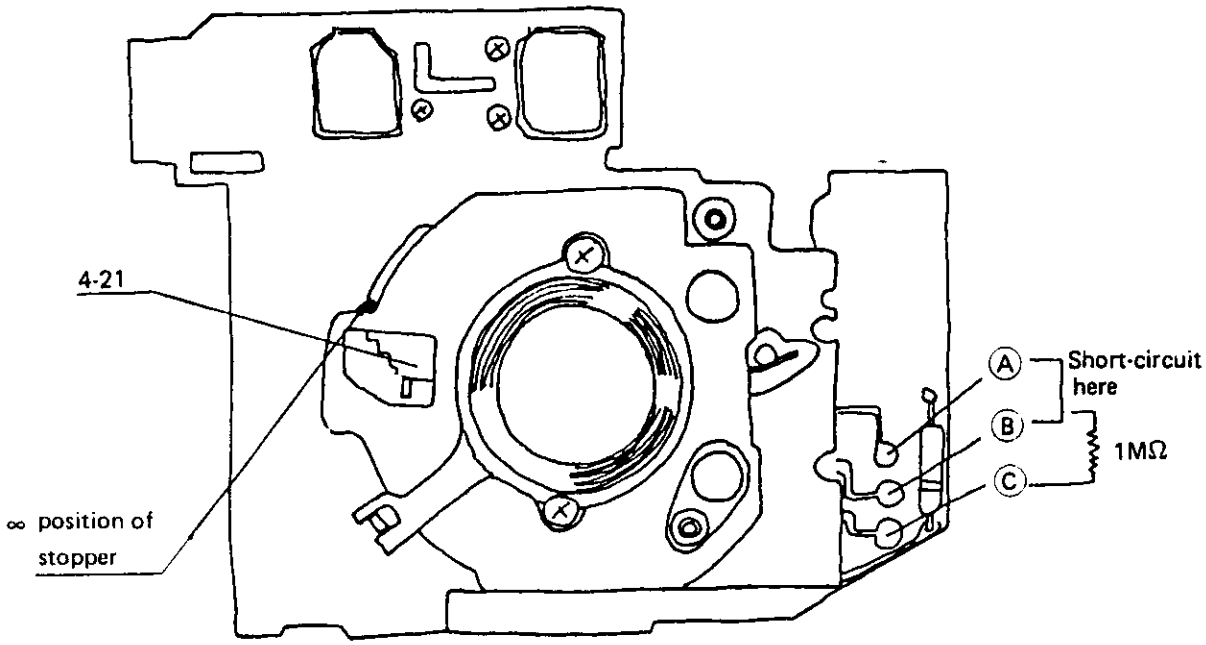

(R)- Red
(B)- Black
(O)- Orange
(Y)- Yellow
(G)- Green
(A)- Gray
(V)- Violet
(W)- White
(C)- Brown
(D)- Blue
7-25 (W)
7-24 (G)
3-25
3-9
7-23 (R)
7-24 (G)
7-26 (D)
3-27
7-29(G)
7-27 (R)
7-22 (C)
7-21 (O)
4-16
7-12 (G)
4-11
7-20 (Y)
7-19 (C)
7-16 (A)
7-17 (W)
7-18 (Y)
7-30(Y)
7-11 (D)
7-10 (R)
3-28
5-100
7-30(Y)
3-7
4-25
5-128
7-9 (R)
7-13(G)
5-54
7-15(D)
7-14(C)
7-6 (B)
7-5 (R)
5-54
7-6 (B)
7-5 (R)
7-4 (A)
7-3 (O)
5-140
7-31
7-2 (O)
7-1 (V)

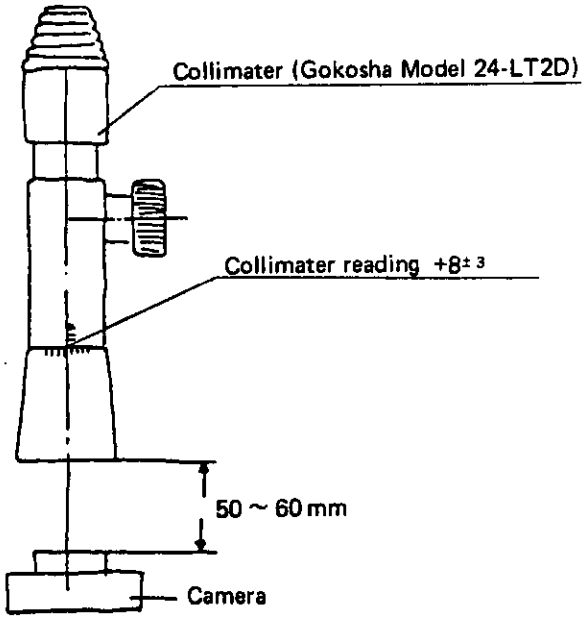
22. Focus adjustment (13.9m setting)

- Apply DC 3V to power supply terminals (lead wires 7-5 and 7-6) of the MC board assembly (3-7).
- Release the shutter and fully open it.

  To fully open the shutter, short-circuit terminals Ⓐ and Ⓑ shown in the right hand figure, and apply a 1MΩ resistor across terminals Ⓑ and Ⓒ.
- Make sure that the AF stopper of the lens is on the ∞ position on the stepped cam (4-21) when the shutter is released.

  Cover up either one of the autofocus windows to shield light. The AF stopper will then be positioned on ∞.
- Using a collimater (Gokosha Model 24-LTD2), loosen two set screws (4-32), turn the lens and adjust focusing performance so that sharp images can be obtained.
- When the adjustment is completed, lock the two set screws (4-32) with Pliobond.


4-21
∞ position of stopper
Ⓐ
Short-circuit here
Ⓑ
1MΩ
Ⓒ


Collimater (Gokosha Model 24-LT2D)
Collimater reading +8±3
50 ~ 60 mm
Camera

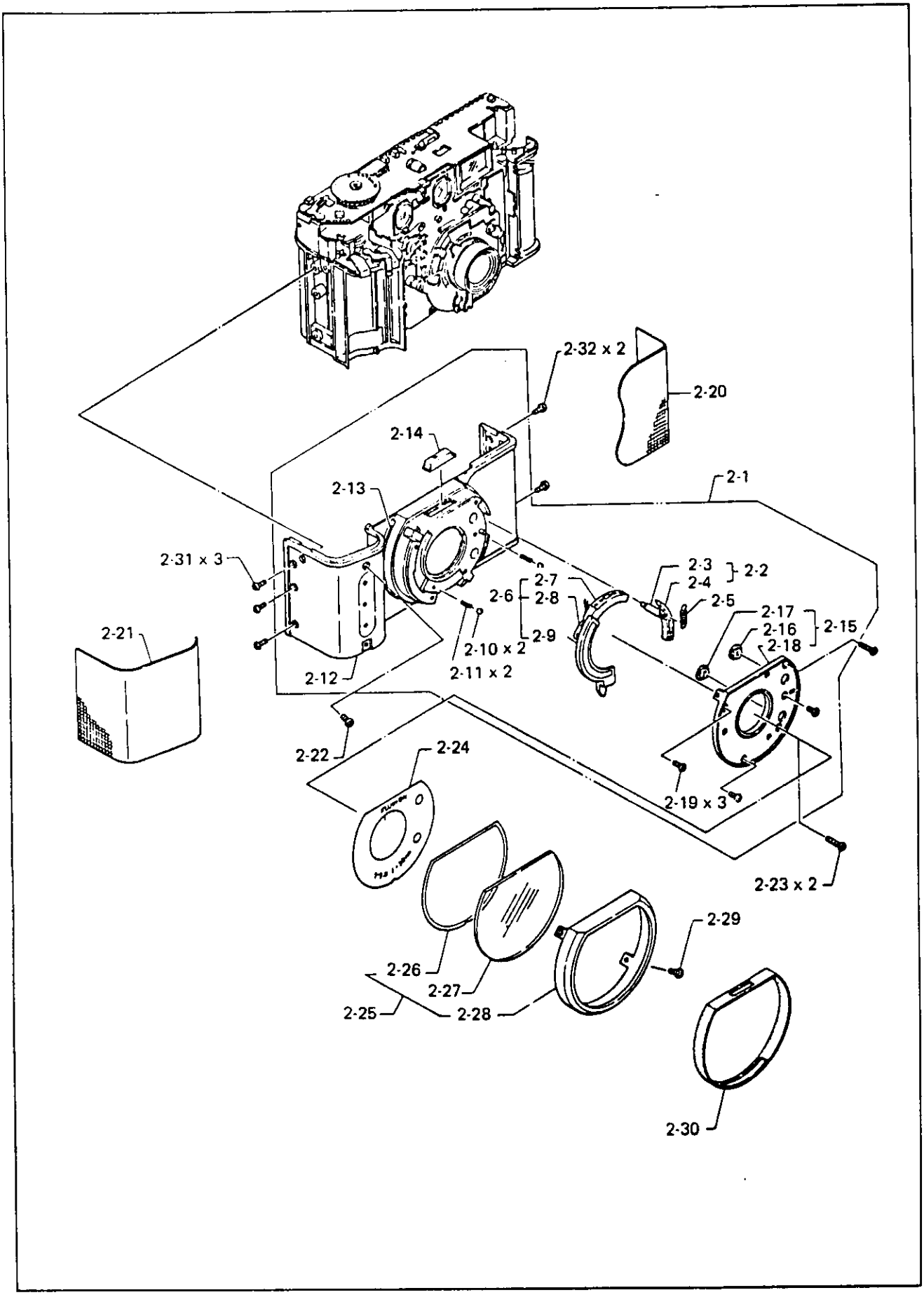
23. Front cover assembly (2-1)

- Push up the self-timer lever assembly (2-2) so that the camera is not under the self-timer mode.

  NOTE: Red mark appears when the camera is under the self-timer mode.

  CAUTION: Be careful not to deform the self-timer switch on the electronic shutter assembly.

- Install the front cover assembly (2-1) with the set screw (2-22), two set screws (2-23), three set screws (2-31) and two set screws (2-32).
- Install the name plate (2-24) with Pliobond.
- Install the filter assembly (2-25) with the set screw (2-29).
- Install the rubber ring (2-30).


2-32 x 2
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2-31 x 3
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2-5
2-17
2-16
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2-18
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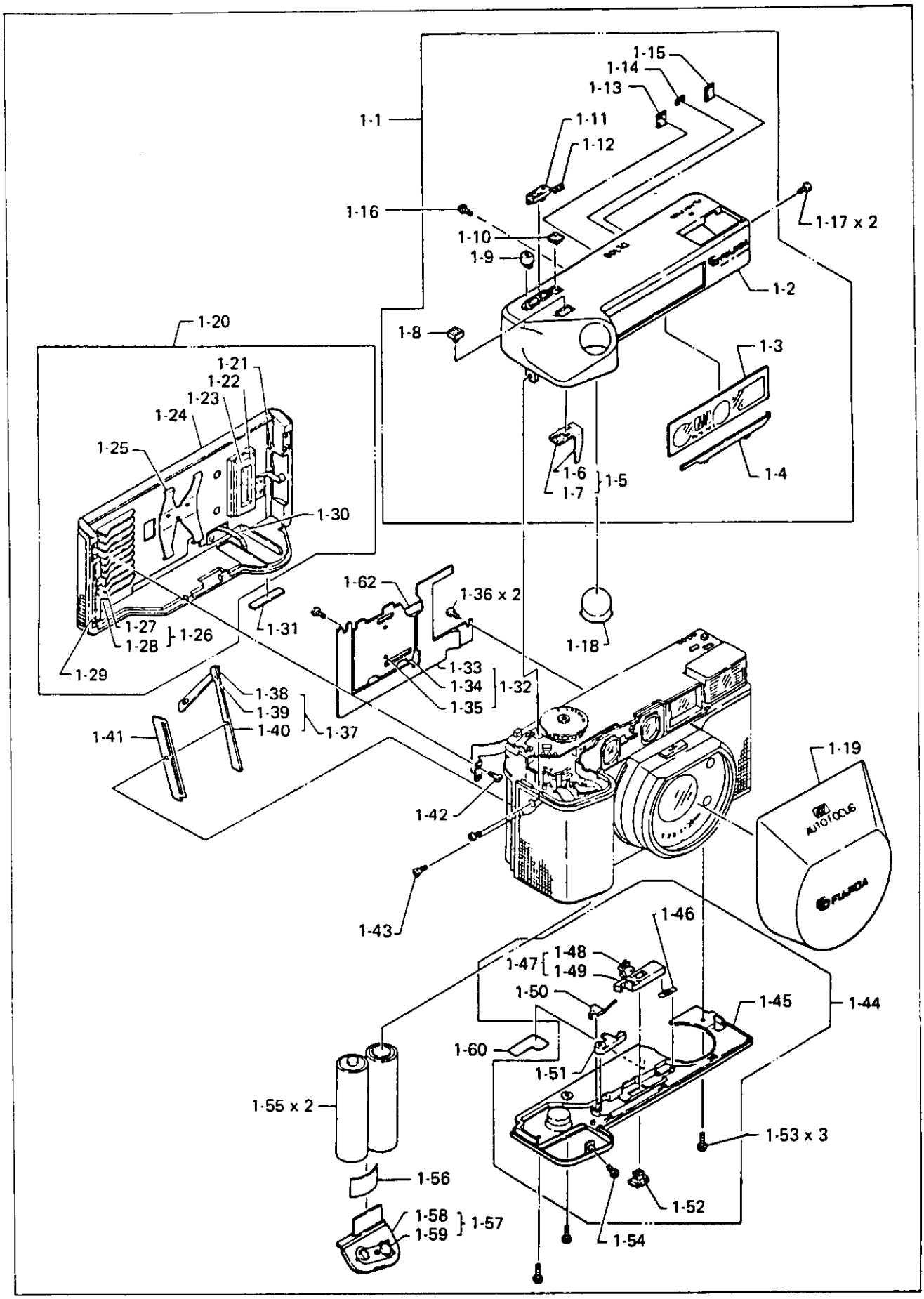
2-10 x 2
2-11 x 2
2-12
2-22
2-24
2-19 x 3
2-23 x 2
2-29
2-26
2-27
2-25
2-28
2-30

24. Bottom cover assembly (1-44)

- Install the leaf spring (1-56) and battery compartment cover assembly (1-57) into the groove on the chassis.
- Make sure that the contact (1-48) is clean and not deformed, and then, install the bottom cover assembly (1-44).
- Tighten three set screws (1-53) and set screw (1-54) to secure the bottom cover assembly.

25. Top cover assembly (1-1)

- Fit the shutter release (1-18) to the release shaft.
- Place the top cover assembly (1-1) onto the chassis gently.
- Tighten the set screw (1-16) and two set screws (1-17) to secure the top cover assembly.
- Load the battery compartment with batteries, depress the shutter release, and make sure that the shutter operates correctly.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1-55 x 2
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1-62
AUTOFOCUS
FUJICA

26. Checking and adjusting exposure value

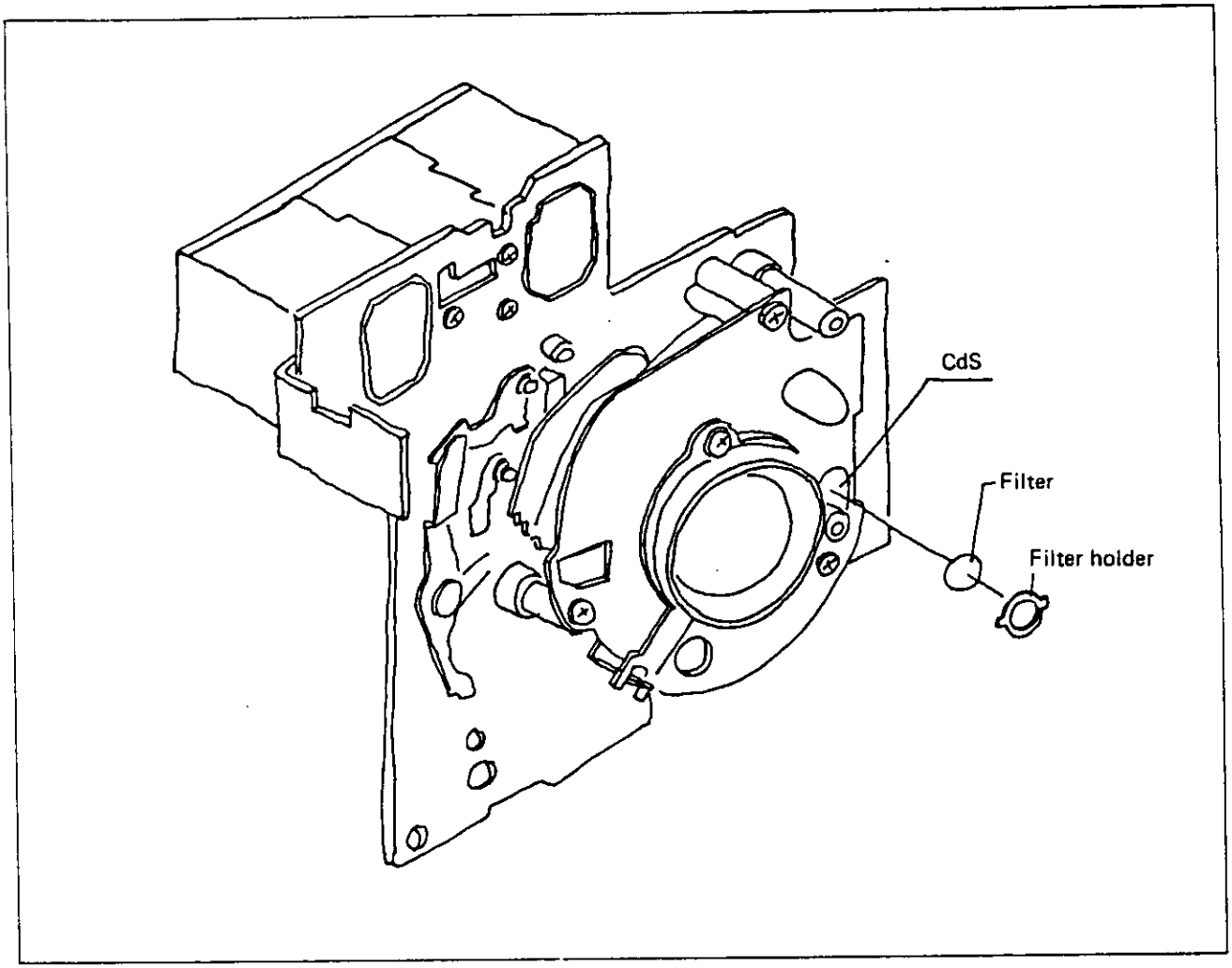
○ Set the camera to ASA100, measure exposure values at LV9, LV11 and LV15, and make sure that the exposure value at each light value is within the rating.

LV	Brightness	Exposure value
9	22.48 rlx	
11	899.5 rlx	0.11x -see ± 1.2EV
15	1439.50 rlx	

○ When measured exposure value deviates the rating, adjust the filter in the CdS window.

OVER . . . . . Replace the filter with a brighter one. (Reduce number of filters.)

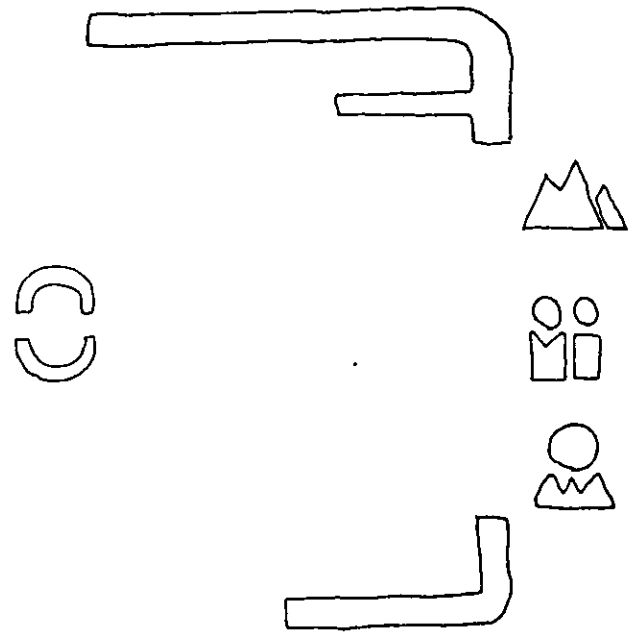
UNDER . . . . . Replace the filter with a darker one (Increase number of filters.)


CdS
Filter
Filter holder

27. Checking automatic focusing operations

- Perform focusing at the normal room light value.
- For the chart, it is desirable to use the standard reflecting plate (Oxford gray No. 22). However, when the standard reflecting plate is not available, other subjects may be used as long as the subjects are other than the followings:
  a. Those which are hard to reflect infrared rays (for example, hair and black telephone)
  b. Glossy subjects which reflect light at the surface (for example, glass, mirror and shining car body)
  c. Extremely bright subjects
     (for example, fluorescent lamp and sun beam)
  d. Those of small area to which infrared rays are applied.
     (for example, wire net, grid and steel bar)
  e. Subjects which are moving under a high speed
     (for example, train and car)
  f. Others
     (for example, fountain, water surface, flame, smoke and fire works)

Fujica DL-100 uses an active infrared system, and therefore, when the above subjects are used to check focusing performance, the performance will not be fully displayed.



Corresponding steps
[stepped cam (4-21)]

8	13.9m
7	4.69m
6	2.84m
5	2.06m
4	1.62m
3	1.34m
2	1.14m
1	1m

- Both LEDs light at 3rd and 6th steps.
- Rating: ±1 step

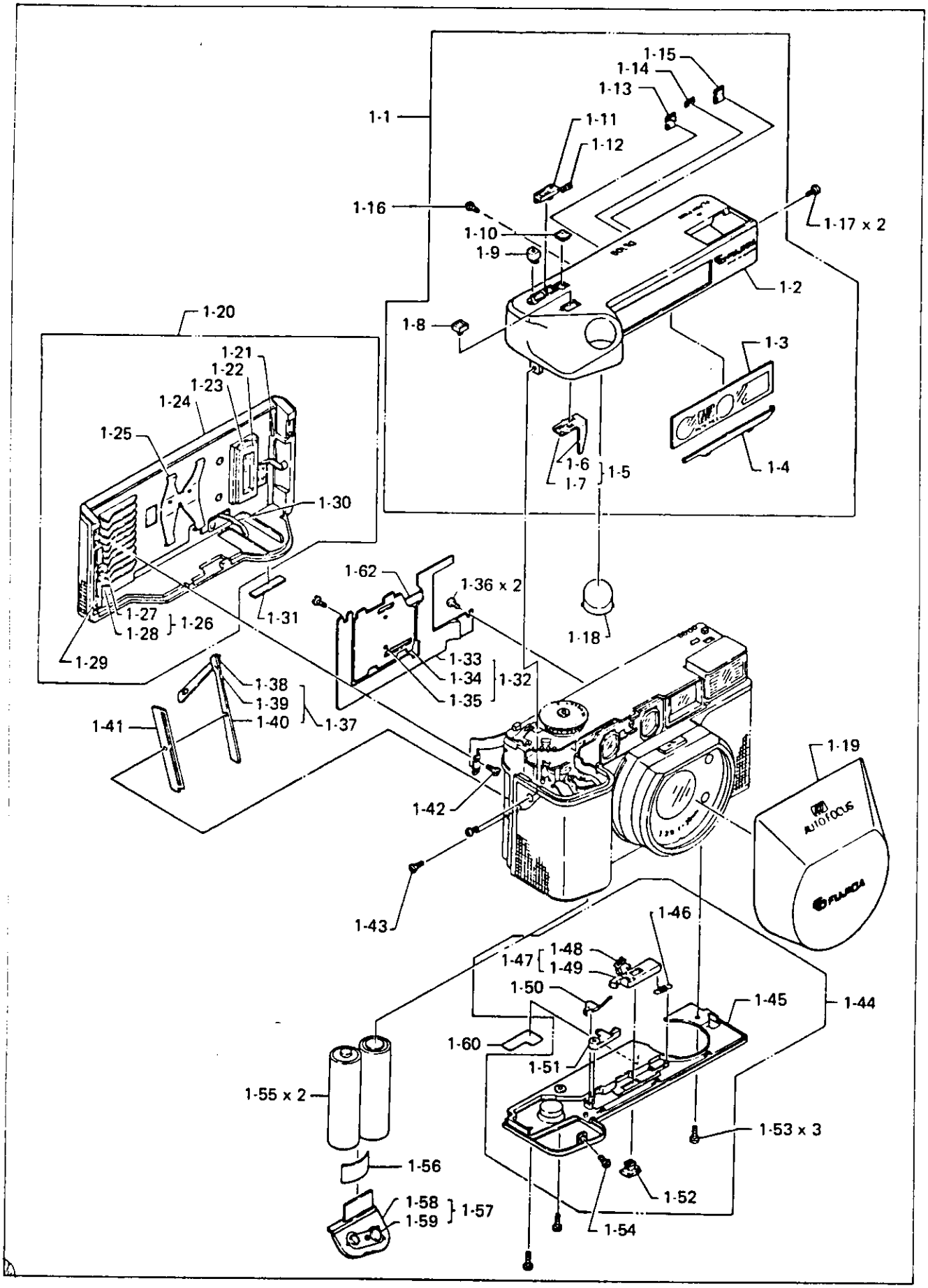
V. INSPECTION

Item	Method	Remarks
1. Film advance/ rewind system	○ Load the camera with batteries of the rated voltage. ○ Load the camera with a film and close the camera back. ○ Make sure that the film advance starts as soon as the camera back is closed. ○ Make sure that the film is advanced successively up to the 1st frame. ○ Make sure that the FILM RUM lamp (green) lights when the film is advanced. ○ Depress the shutter release, repeat depressing the shutter release, and make sure that the film is advanced smoothly until it is advanced completely to the last frame. ○ Make sure that the film rewind starts automatically when 3 to 5 seconds are elapsed after the last frame was exposed. (The timer capacitor causes this delay.) ○ When the film is rewound completely, make sure that the exposure counter dial stops at "1". ○ Make sure that the film advance/ rewind system advances one frame and stops when about 3 seconds are elapsed after the FILM RUN lamp stopped flashing.	
2. Manual rewind	○ Depress the manual rewind button, and make sure that the film rewind starts forcedly. ○ Make sure that the motor stops automatically as described in 1 above when the film is rewound completely.	

Item	Method	Remarks
3. Automatic film speed setting system	○ Set the film speed selector to AUTO, and make sure that the automatic film speed setting system identifies Fuji Color FII (ASA100 and 400) correctly. To check this, observe shutter speed and aperture diameter from the front face of the camera. There should be a difference. When the camera identifies ASA400, the aperture diameter should be smaller and shutter speed should be faster. ○ Set the film speed selector to ASA100, face the camera to a dark subject, depress the shutter release in a half way, and make sure that the camera shake warning lamp lights.	
4. Automatic focusing system	○ Face the camera to a closed up subject, release the shutter and make sure that the zone focus mark for the short distance lights in the viewfinder and the lens is moved to the forehead. ○ Face the camera to a subject in the infinity or shield the light applied to the autofocus window, and make sure that the zone focus mark for the infinity lights and the lens is moved to the deepest position in the camera.	
5. Flash	○ Depress the flash lamphead and make sure that it pops up smoothly. ○ Make sure that the flash charging starts as soon as the lamphead pops up, and the READY lamp lights when charged completely. ○ Release the shutter and make sure that the flash lamp flashes correctly. ○ With the READY lamp lit, depress the lamphead to accommodate it into the camera body, and make sure that the READY lamp goes out.	

Item	Method	Remarks
6. Self-timer	○ Set the self-timer lever, depress the shutter release, and make sure that the shutter is released when about 10 seconds (7 to 14 seconds) are elapsed after the shutter release was depressed. ○ Make sure that the self-timer lamp lights correctly when the self-timer is operating.	
7. Others	○ Make sure that the battery compartment cover can be opened and closed smoothly and correctly. ○ Slide the shutter release lock to "L", and make sure that the shutter release is locked. ○ Make sure that the film speed selector moves smoothly and clicks at each position. ○ Open the camera back and make sure that the exposure counter resets to "S".	

Ⅵ. PARTS LIST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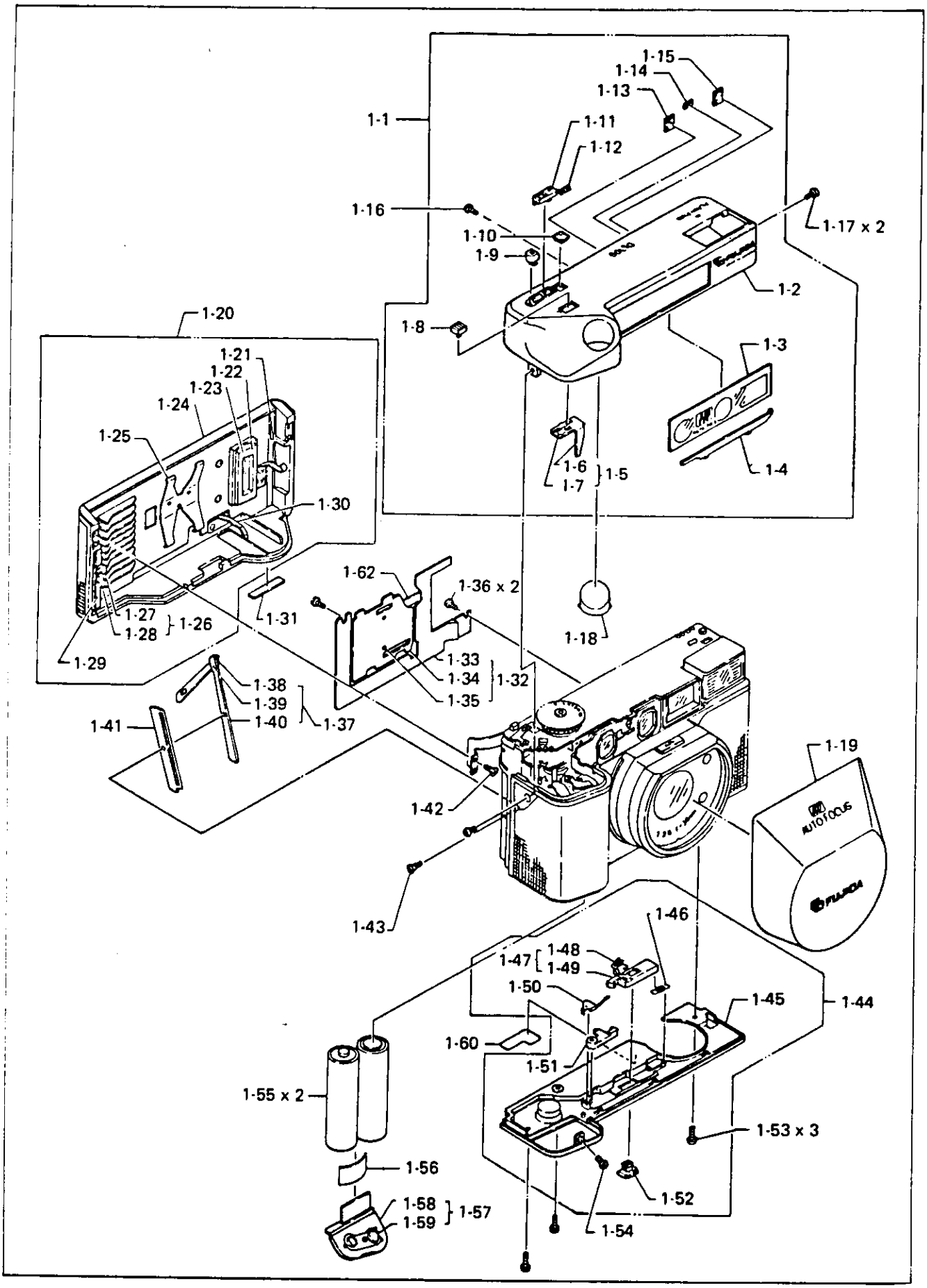
Ref No.	Part No.	Part Name	Q'ty	Remarks
1-1	303A3697340	Top cover assembly 1-2, 1-3, 1-4, 1-5, 1-8, 1-9, 1-10, 1-11, 1-12, 1-13, 1-14, 1-15	1	
3	6B3697450	Viewfinder glass	1	
4	81B3654070	Holder	1	
5		Run-Lock lever assembly 1-6, 1-7		
8	16B3654010	Shutter release lock	1	
9	16B3654040	Manual rewind button	1	
10	87B3654060	Exposure counter window	1	
11	16B3654030	Slide knob	1	
12	50B3313960	Spring	1	
13	81B3653970	Film wind/rewind check window		
14	81B3653990	Camera shake warning lamp window	1	
15	81B3653980	Flash ready lamp window	1	
16	110M170303M	Set screw	1	
17	113M170403M	Set screw	2	
18	16B3650140	Shutter release	1	
19		Lens cap	1	
20	11A3654310	Back cover assembly 1-21, 1-22, 1-23, 1-24, 1-25, 1-29, 1-30	1	
22	27B3654580	Light shielding pad	1	
23	81B3314970	Film comfirmation window	1	
29	27B3654590	Moquette	1	
31	310M04174B	Number plate	1	
32	30A3650810	Guide plate assembly 1-33, 1-34, 1-35 x 2, 1-61	1	
36	113M170353M	Set screw	2	
37	85A3650830	Cutter assembly	1	
41	11B3651180	Cover	1	
42	114M170503M	Set screw	2	
43	111M200351M	Set screw	1	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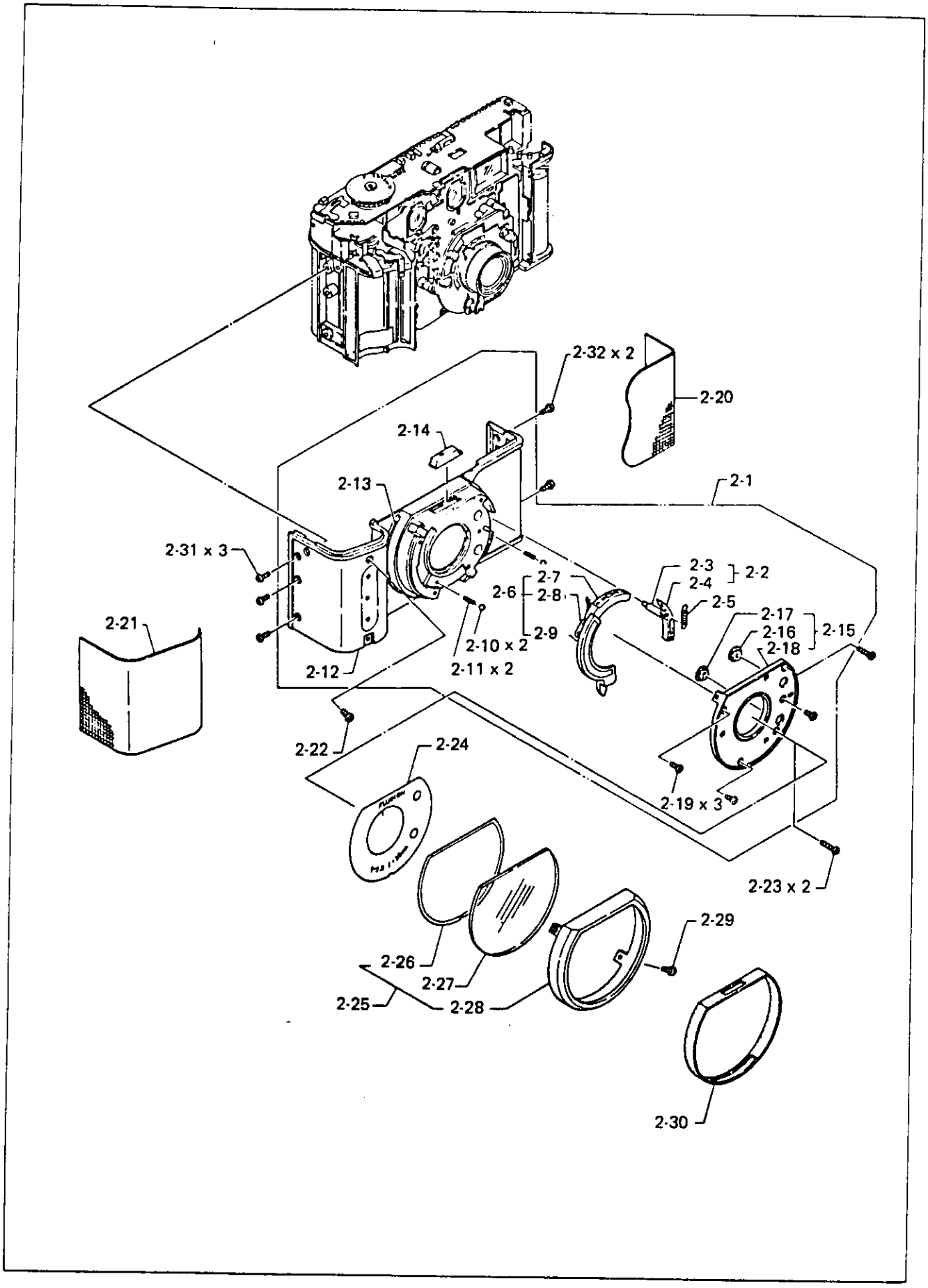
Ref No.	Part No.	Part Name	Q'ty	Remarks
1-44	11A3649830	Bottom cover assembly 1-45, 1-46, 1-47, 1-50, 1-51, 1-52	1	
46	50B3650090	Spring	1	
47	16A3649840	Back cover lock assembly	1	
50	50B3650080	Leaf spring	1	
51	47B3650070	Lever	1	
52	16B3650050	Back cover lock knob	1	
53	113M170503M	Set screw	3	
54	113M170353M	Set screw	1	
56	50B3650190	Leaf spring	1	
57	11A3649850	Battery compartment cover assembly 1-58, 1-59	1	
60	58B3650170	Seal	1	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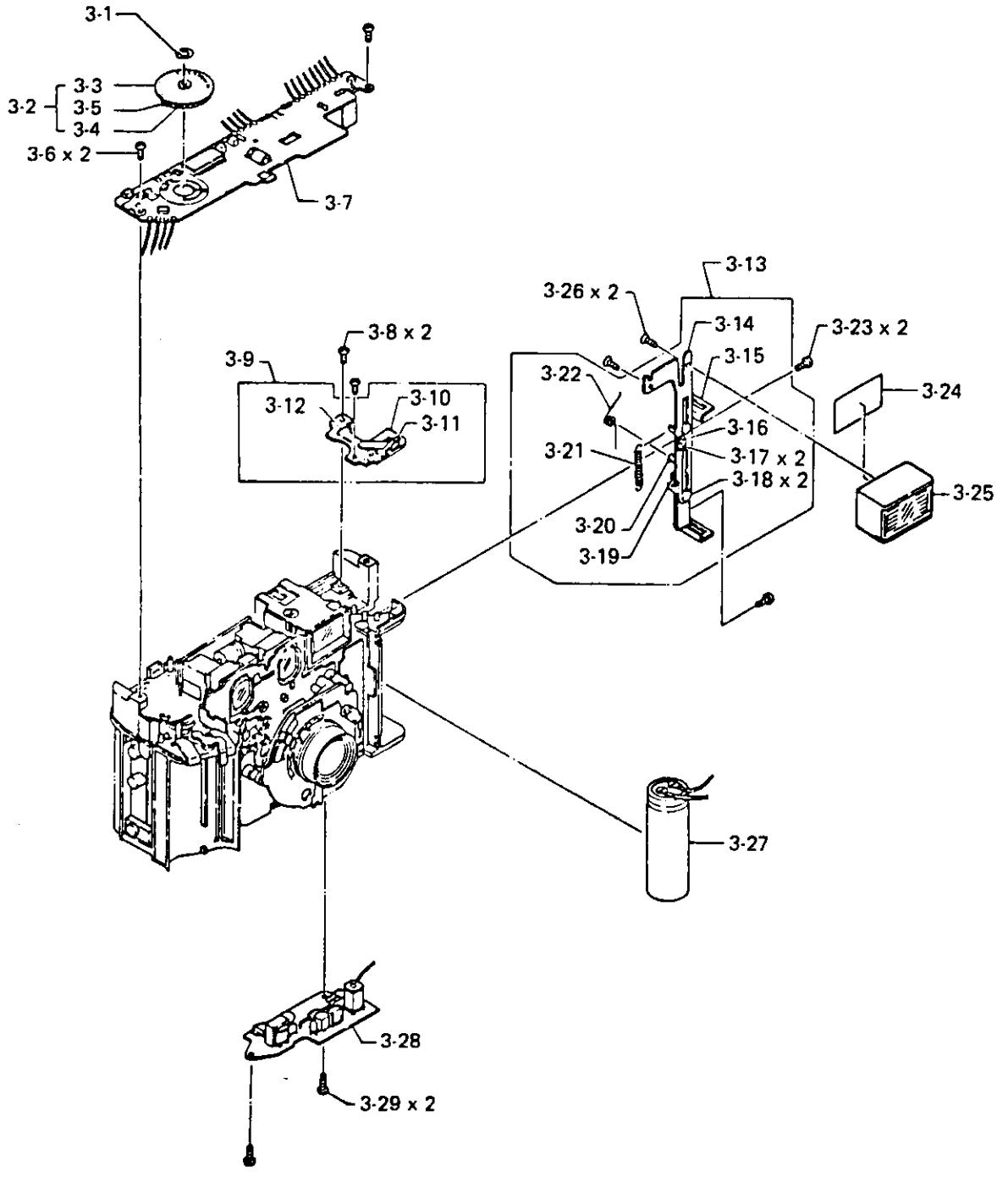
Ref No.	Part No.	Part Name		Q'ty	Remarks
2- 1	11A3653310	Front cover assembly	2-2, 2-5, 2-6, 2-10, 2-11, 2-12, 2-13, 2-14, 2-15, 2-19 x 3	1	
2	16A3653330	Self-timer lever assembly	2-3, 2-4	1	
5	50B3653510	Spring		1	
6	10A3653320	Film speed set knob assembly	2-7, 2-8, 2-9	1	
7	58B3653460	Film speed label		1	
10	200M20	Steel ball		2	
11	50B3653470	Spring		2	
12	11B3653410	Front cover		1	
13	58B3653420	Green belt		1	
14	81B3653450	Film speed window		1	
16	81B3653520	CdS window		1	
17	81B3653490	Self-timer window		1	
18	21B3653530	Holder		1	
19	113M170353M	Set screw		1	
20	59B3653590	Leather		1	
21	59B3653600	Leather		1	
22	110M200251M	Set screw		1	
23	110M171003M	Set screw		2	
24	58B3653540	Name plate		1	
25	21A3653340	Filter assembly	2-26, 2-27, 2-28	1	
26	50B3653580	Spring		1	
27	4B3688880	Filter		1	
28	21B3653560	Filter frame		1	
29	113M170353N	Set screw		1	
30	23B3653550	Rubber ring		1	
31	113M170403N	Set screw		3	
32	110M200251N	Set screw		2	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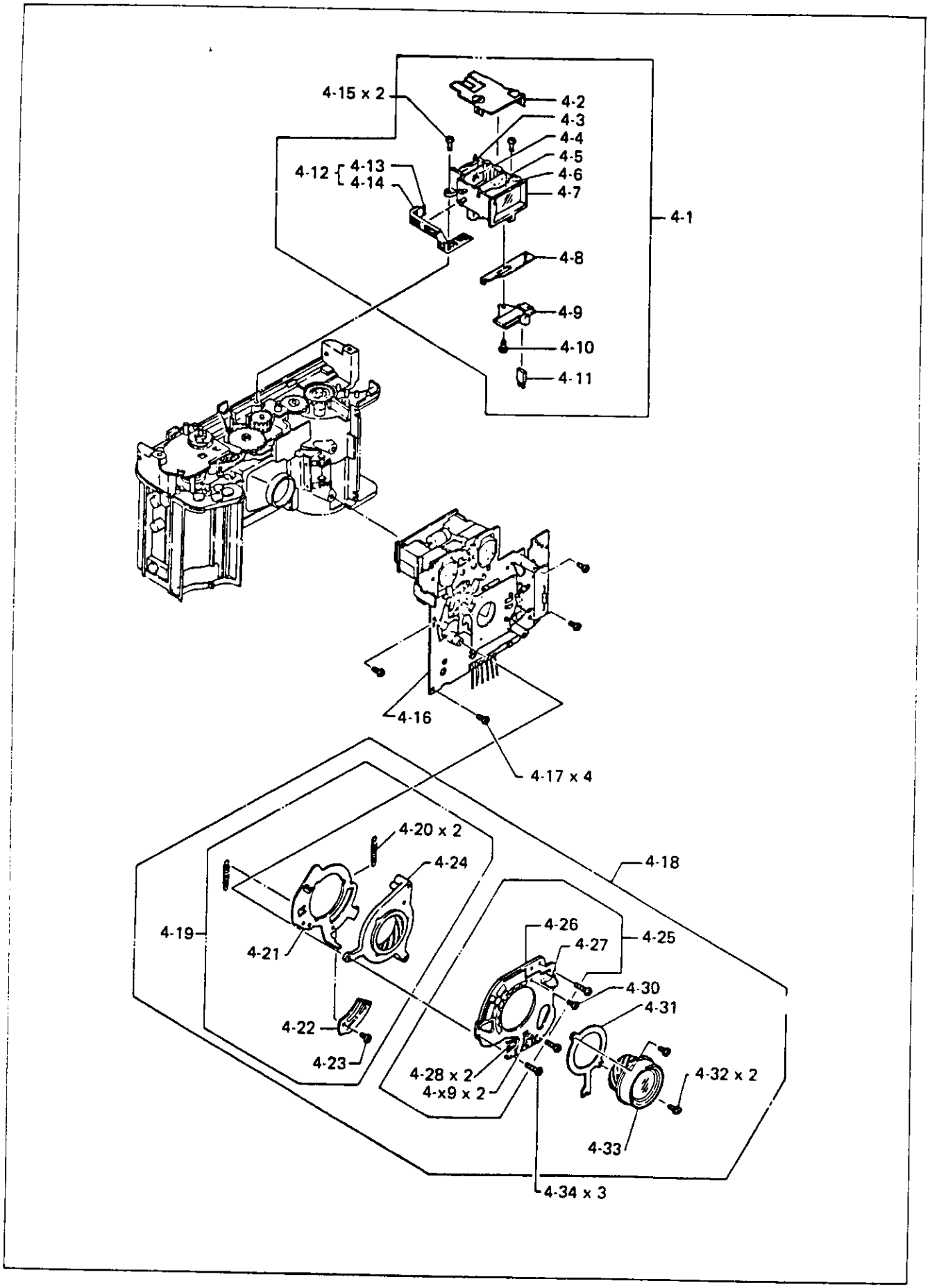
Ref. No.	Part No.	Part Name		Q'ty	Remarks
3-1	55B3310520	Clip		1	
2	36A3655820	Exposure counter dial			
		assembly	3-3, 3-4, 3-5	1	
6	113M170403M	Set screw		2	
7	110A3697360	MC board assembly		1	
8	113M170353M	Set screw		2	
9	110A3657540	Switch assembly	3-10, 3-11, 3-12	1	
13	41A3657560	Strap lug assembly	3-14, 3-15, 3-16, 3-17, 3-18		
			3-19, 3-20, 3-21, 3-22	1	
21	50B3657820	Spring		1	
22	50B3657830	Spring		1	
23	113M200501M	Set screw		2	
24	58B3650180	Seal		1	
26	114M170451M	Set screw		2	
27	116K457880	Capacitor		1	
29	113M170351M	Set screw		2	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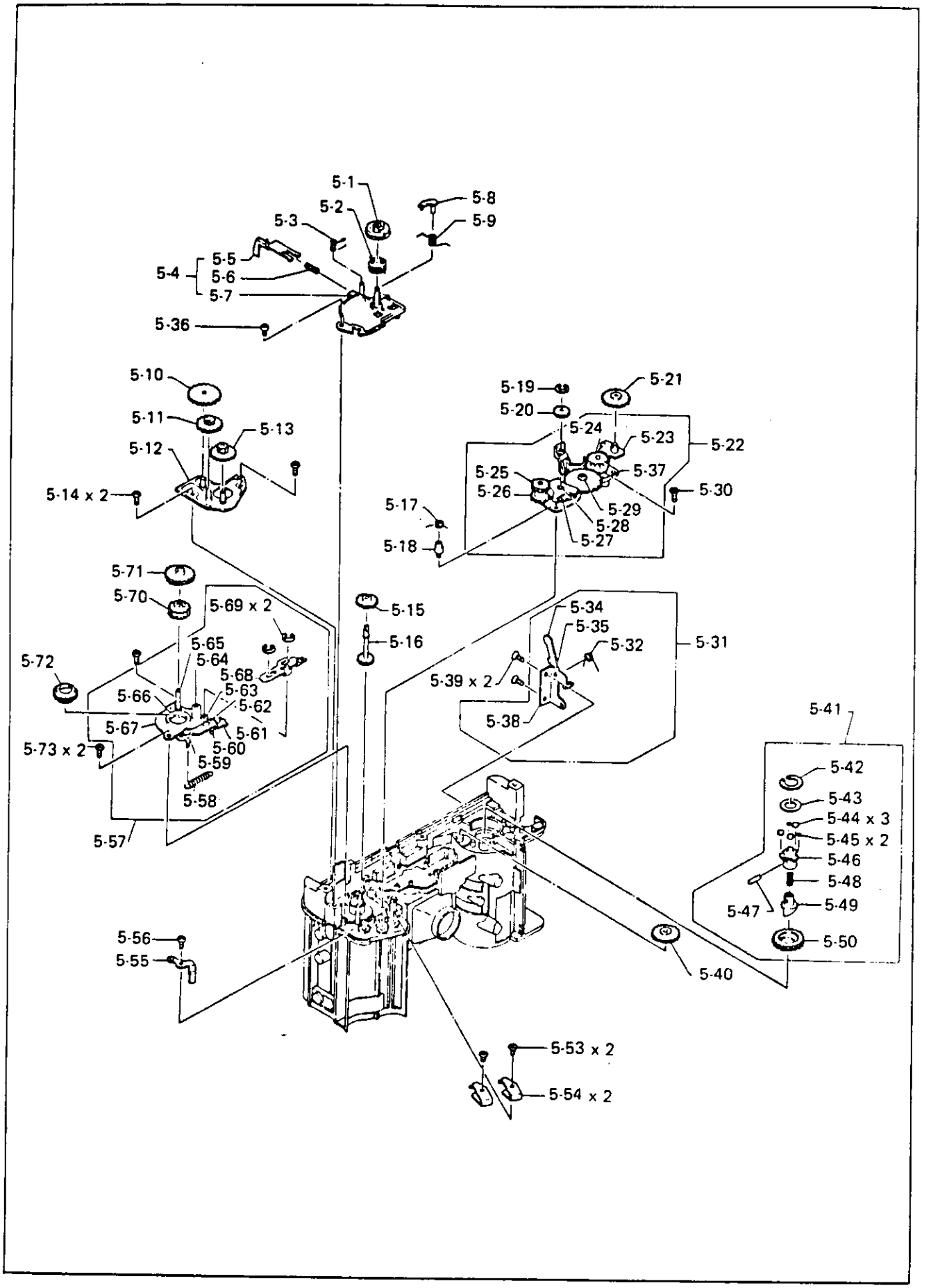
Ref No.	Part No.	Part Name		Q'ty	Remarks
4-1	99A51252F10	Viewfinder assembly	4-2, 4-3, 4-4, 4-5, 4-6 4-7, 4-8, 4-9, 4-10, 4-11, 4-12	1	
10	113M170353M	Set screw		1	
11	106K457830	LED		1	
15	113M170503M	Set screw		2	
16	126B3659750	Electronic shutter assembly		1	
17	113M200501M	Set screw		4	
18	21A3655310	Lens assembly	4-19, 4-25, 4-30, 4-31, 4-32, 4-33	1	
19	21A3655330	Female helicoid assembly	4-20, 4-21, 4-22, 4-23	1	
20	50B3655460	Spring		2	
21	35B3655440	Stepped cam		1	
22	110A3655350	FM circuit board		1	
24	21B3655430	Femal helicoid		1	
25	110A3655370	Lens control circuit assembly	4-26, 4-27, 4-28 x 2 4-29 x 2	1	
27	106K457840	LED		1	
30	113M170303M	Set screw		1	
31	47B3655410	Focusing interlock plate		1	
32	53B3317090	Set screw		2	
33	99A657B100	Lens assembly		1	
34	110M171003M	Set screw		3	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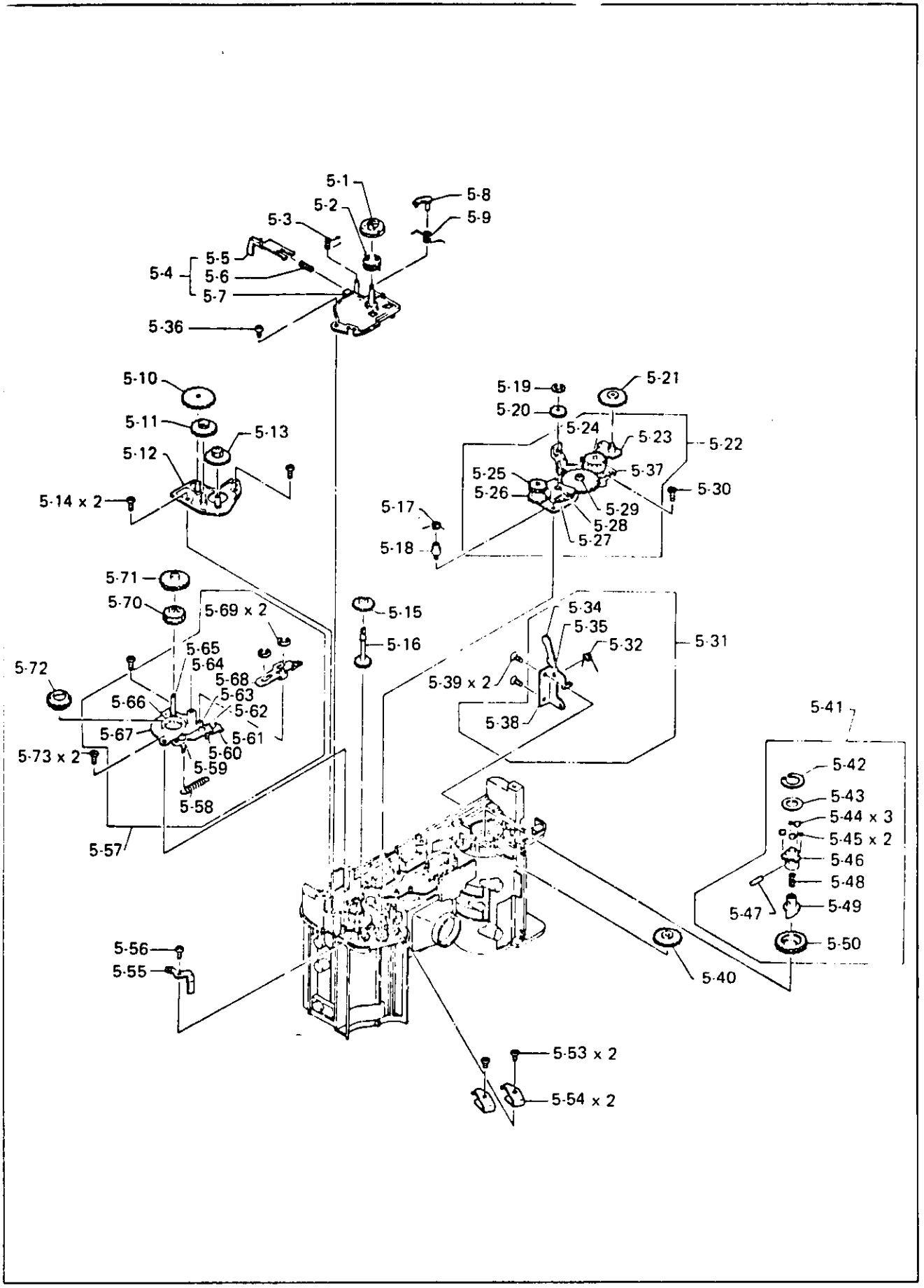
Ref No.	Part No.	Part Name		Q'ty	Remarks
5-1	36B3655970	Exposure counter drum		1	
2	50B3655910	Spring		1	
3	50B3655940	Spring		1	
4	322A3655810	Exposure counter			
		assembly	5-5, 5-6, 5-7	1	
6	50B3313960	Spring		1	
8	47B3655930	Release lever		1	
9	50B3655950	Spring		1	
10	34B3652040	No. 4 gear		1	
11	34B3652030	No. 3 gear		1	
12	46B3652010	Base plate		1	
13	34B3652020	No. 2 gear		1	
14	110M170403M	Set screw		2	
15	34B3652280	Gear		1	
16	34B3655960	Drive gear		1	
17	50B3650150	Spring		1	
18	53B3650160	Screw		1	
19	191M012T	E-clip		1	
20	34B3652350	Counter gear		1	
21	34B3652200	Gear		1	
22	46A3651810	Gear assembly	5-23, 5-24, 5-25, 5-26, 5-27,		
			5-28, 5-29	1	
30	113M170703M	Set screw		1	
31	86A3650840	Plate assembly	5-32, 5-34, 5-35, 5-38	1	
32	50B3651240	Spring		1	
39	114M170353M	Set screw		2	
40	34B3562210	Gear		1	
41	32A3651820	Film rewinder assembly	5-42, 5-43, 5-44, 5-45,		
			5-46, 5-47, 5-48, 5-49, 5-50	1	
53	113M170301M	Set screw		2	
54	109B3651590	Battery contact		2	
55	41B3651680	Bracket		1	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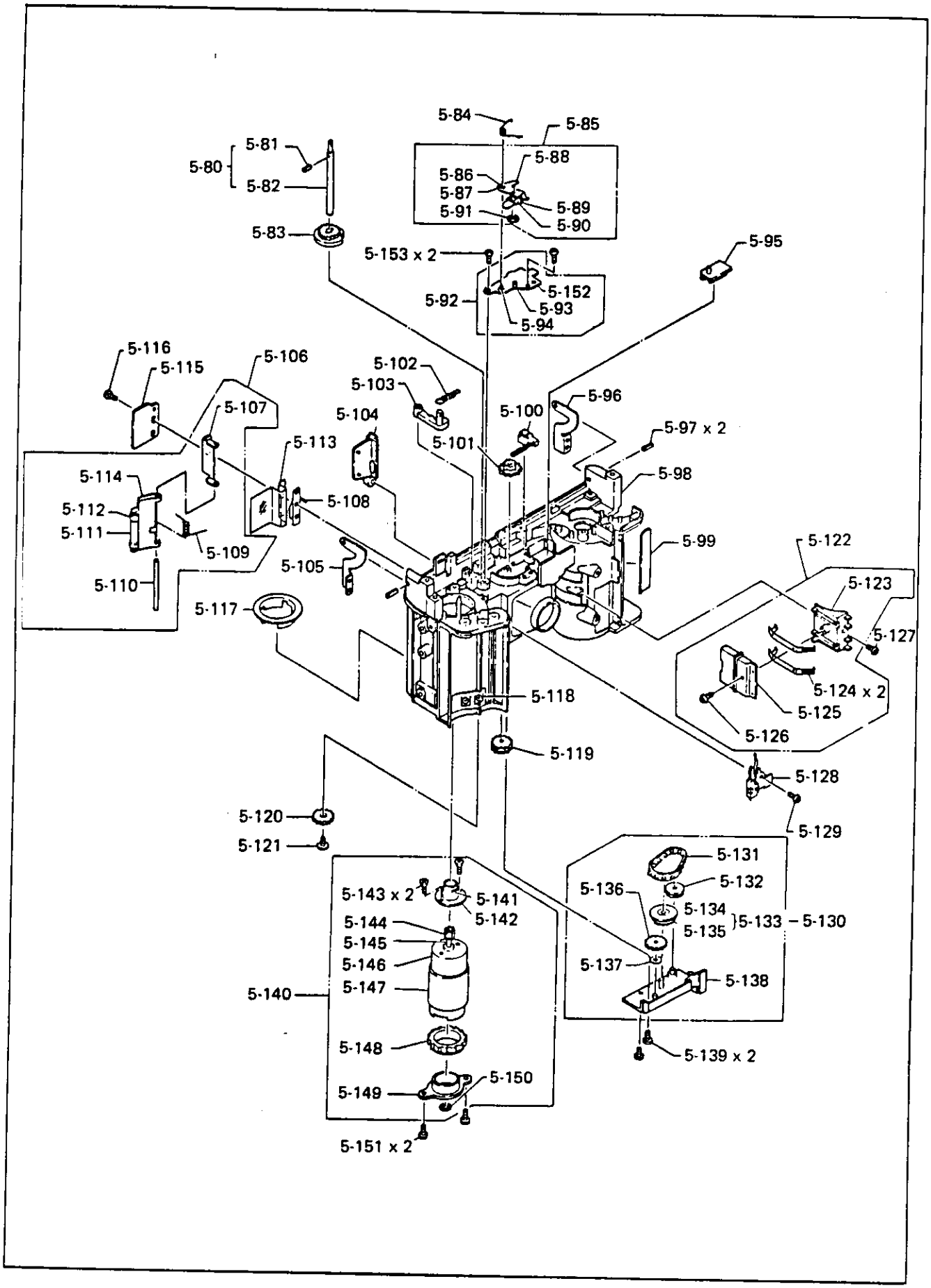
Ref No.	Part No.	Part Name		Q'ty	Remarks
5-56	113M170353M	Set screw		1	
57	46A3650920	Shaft holder assembly	5-58, 5-59, 5-60, 5-61, 5-62,		
			5-63, 5-64, 5-65, 5-66, 5-67,		
			5-68, 5-69 x 2	1	
58	50B3651390	Spring		1	
68	47B3651360	Stopper plate		1	
69	191M012T	E-clip		1	
70	34B3562060	No. 5 gear (B)		1	
71	34B3652050	No. 5 gear (A)		1	
72	34B3652130	Spool gear		1	
73	111M170303M	Set screw		2	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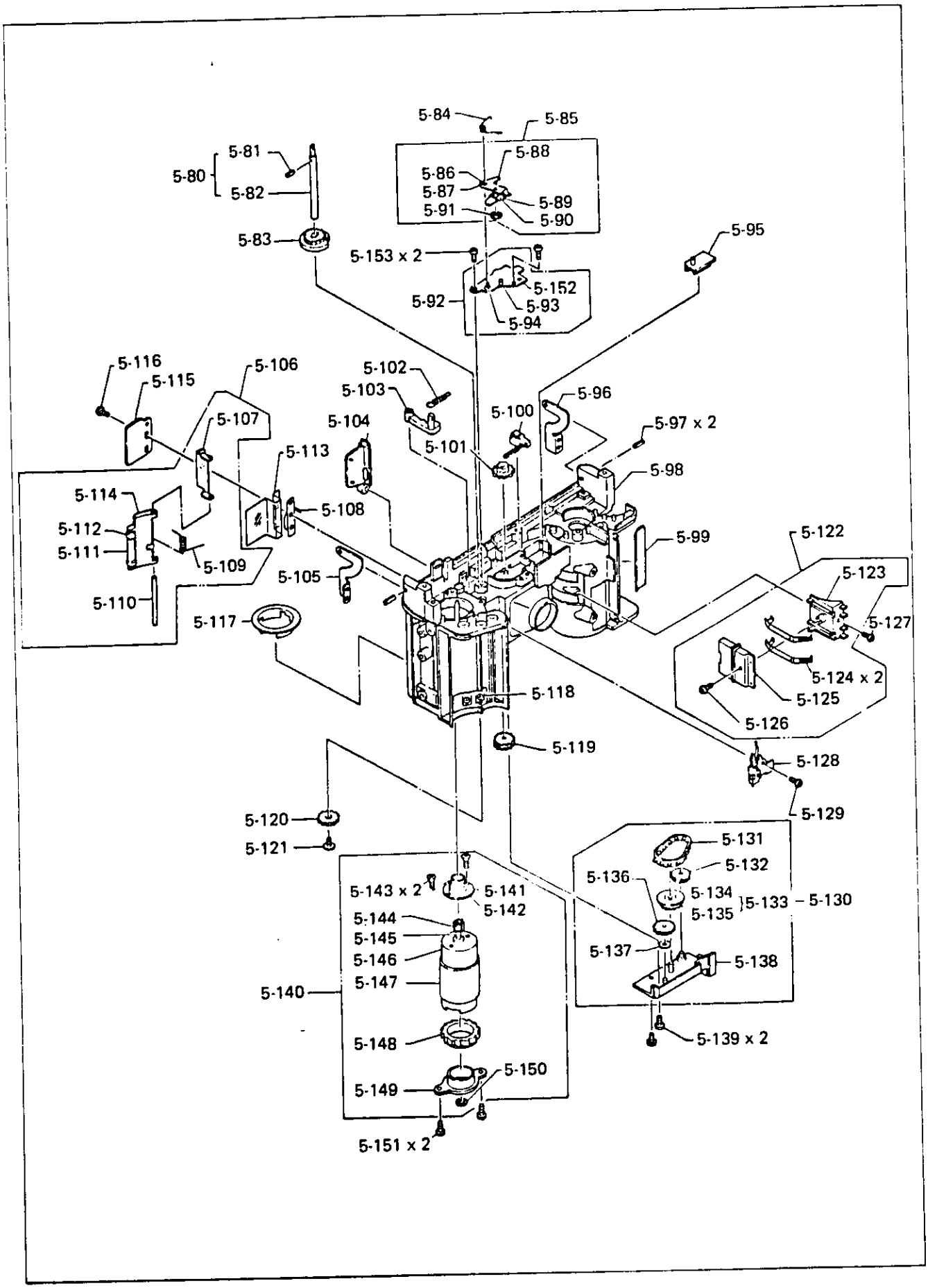
Ref No.	Part No.	Part Name		Q'ty	Remarks
5-80	32A3651840	Shaft assembly	5-81, 5-82	1	
83	35B3652260	Cam		1	
84	50B3651530	Spring		1	
85	47A3650940	Set lever assembly	5-86, 5-87, 5-88, 5-89, 5-90, 5-91	1	
92	46A3650930	Base plate assembly	5-93, 5-94	1	
95	81B3697440	Blind cover		1	
96	19B3654530	Hinge		1	
97	182M140501H	Spring pin		1	
98	10B3651110	Chassis		1	
99	41B2324100	Adhesive tape		1	
100	109A3650950	Ss switch assembly		1	
101	34B3651550	Film gear		1	
102	50B3651400	Spring		1	
103	47B3651670	Stop lever		1	
104	82B3651320	Door		1	
105	19B3654520	Hinge		1	
106	41A3650970	Supporter assembly	5-107, 5-108, 5-109, 5-110, 5-111, 5-112, 5-113, 5-114	1	
108	50B3651310	Leaf spring		1	
115	30B3651800	Film guide		1	
116	113M170353M	Set screw		1	
117	25B3651720	Collar		1	
118	58B3651700	Battery seal		1	
119	34B3652280	Gear		1	
120	34B3652270	Gear		1	
121	53B3651740	Set screw		1	
122	81A3650910	Automatic film speed setter assembly	5-123, 5-124, 5-125, 5-126	1	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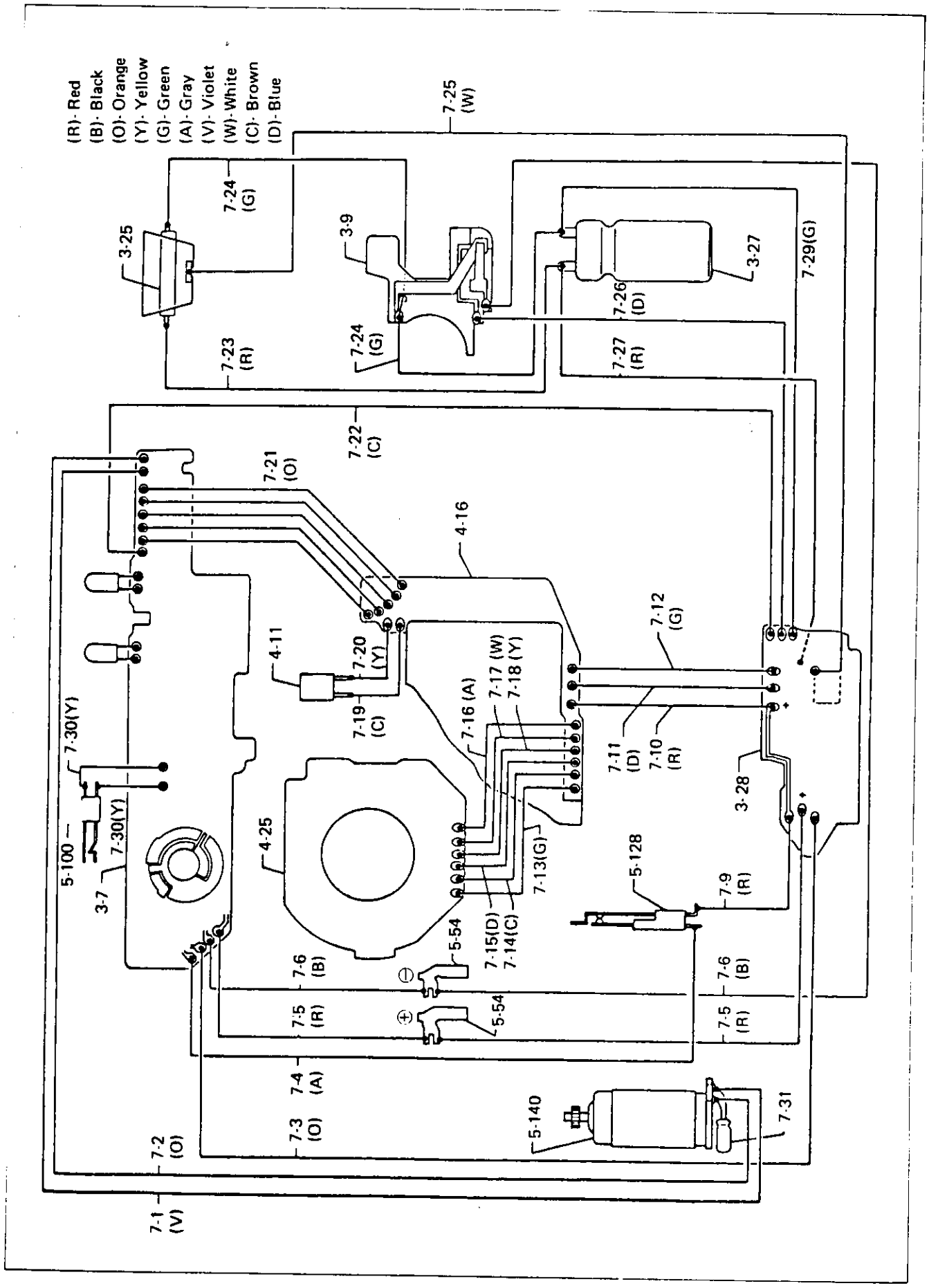
Ref No.	Part No.	Part Name		Q'ty	Remarks
5-123	81B3651280	Frame		1	
124	109B3651300	Contact		1	
125	81B3651240	Holding bar		1	
126	113M170403M	Set screw		1	
127	113M170403M	Set screw		1	
128	109A3650960	So switch assembly		1	
129	113M170403M	Set screw		1	
130	56A3652330	E-belt assembly	5-131, 5-132, 5-133, 5-136, 5-137, 5-138	1	
131	56B3652330	E-belt		1	
132	56B3652320	Pulley		1	
136	34B3652290	Gear		1	
137	55B3651760	Friction washer		1	
138	11B3652340	Cover		1	
139	1BM170503M	Set screw		2	
140	101A3650880	Motor assembly	5-141, 5-142, 5-143, 5-144, 5-145, 5-146, 5-147, 5-148, 5-149, 5-150	1	
141	50B3311610	Friction plate		1	
142	31B3651410	Spool holder		1	
143	111M140201M	Set screw		2	
144	191M012T	E-clip		1	
147	36B3651730	Rubber		1	
148	45B3311250	Ratchet wheel		1	
149	115A3650870	Shaft holder assembly		1	
150		Washer		1	
151	113M170403M	Set screw		2	
153	113M170301M	Set screw		2	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(O)- Orange
(Y)- Yellow
(G)- Green
(A)- Gray
(V)- Violet
(W)- White
(C)- Brown
(D)- Blue
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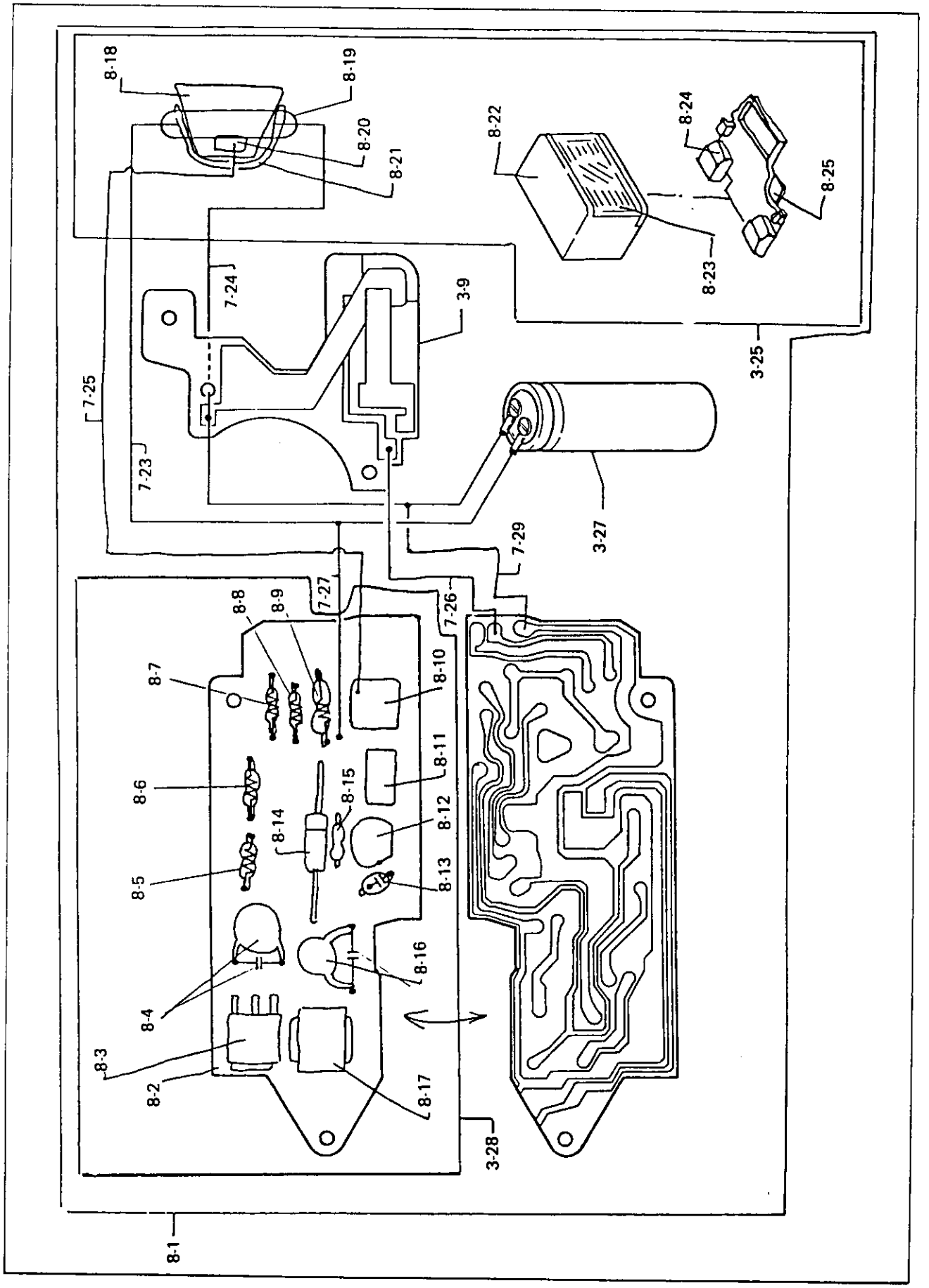
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8-10
8-11
8-6
8-15
8-14
8-12
8-5
8-13
8-16
8-4
8-3
8-2
8-17
3-28
8-1

Ref No.	Part No.	Part Name	Q'ty	Remarks
7- 1	111B3656410	Flat cable (violet)	1	
2	111B3656410	Flat cable (orange)	1	
3	111B3656480	Lead wire (orange)	1	
4	111B3656500	Lead wire (gray)	1	
5	111B3656450	Lead wire (red)	1	
6	111B3656470	Lead wire (black)	1	
9	111B3656490	Lead wire (red)	1	
10	111B3656510	Lead wire (red)	1	
11	111B3656520	Lead wire (blue)	1	
12	111B3656530	Lead wire (green)	1	
13	111B3655510	Lead wire (green)	1	
14	111B3655520	Lead wire (brown)	1	
15	111B3655530	Lead wire (blue)	1	
16	111B3655560	Lead wire (gray)	1	
17	111B3655550	Lead wire (white)	1	
18	111B3655540	Lead wire (yellow)	1	
19	111B3656430	Lead wire (brown)	1	
20	111B3656420	Lead wire (yellow)	1	
21	111B3656540	Flat cable	1	
22	111B3656590	Lead wire (brown)	1	
23	111B3657730	Lead wire (red)	1	
24	111B3657840	Lead wire (green)	1	
25	111B3657710	Lead wire (white)	1	
27	111B3657820	Lead wire (red)	1	
28	111B3657700	Lead wire (blue)	1	
29	111B3659850	Lead wire (green)	1	
30	111B3656600	Lead wire (yellow)	2	
31	116K420060	Capacitor	1	

Ref No.	Part No.	Part Name	Q'ty	Remarks
8- 1	127A3657520	Flash assembly 3-9, 3-25, 3-27, 3-28, 7-23, 7-24, 7-25, 7-26, 7-27, 7-29	1	
2	27	Printed circuit board	1	
3	3	Transistor	1	
4	11	Condenser	1	
5	16	Carbon resistor	1	
6	15	Carbon resistor	1	
7	14	Carbon resistor	1	
8	13	Carbon resistor	1	
9	12	Carbon resistor	1	
10	2	Trigger coil	1	
11	8	M. K. H condenser	1	
12	4	SCR	1	
13	9	Tantalm condenser	1	
14	5	Silicon diode	1	
15	17	Carbon resistor	1	
16	10	Ceramic condenser	1	
17	1	Transformer	1	
18	22	Reflector	1	
19	20	Xenon tube	1	
20	29	Contact plate	1	
21	35	Silicon band	1	
22	24	Strobo case	1	
23	23	Protector	1	
24	25	Bottom plate	1	
25	30	Switch lever	1	

REPAIR MANUAL
&
PARTS LIST

FOR

FUJICA DL-100

SUPPLEMENT NO. 1

This supplementary repair manual is mainly for the auto-focus system and film wind/rewind system. The contained are revised and added instructions. File this supplementary repair manual in the original repair manual issued January, 1983.

1983. 4

FUJI PHOTO FILM CO., LTD.

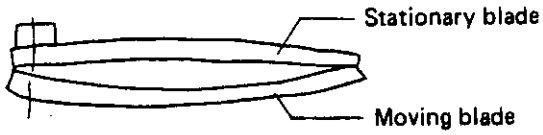
26-30, Nishiazabu 2-Chome, Minato-ku, Tokyo 106, Japan

9. Automatic film wind system

9.1 Jamming occurs.

a. Film cutter

- ○ Check the film cutter to insure that even a Kodak film can be cut smoothly.
- ○ Use Zerox paper and insure that the Zerox paper can be cut smoothly.
- ○ Check the back cover to insure that it is closed normally.
- ○ The film cutter (both the stationary and moving blades) to insure that both the stationary and moving blades are warped as shown below.



b. End perforation on the film is not caught correctly.

The automatic film wind system is so designed that the film is drawn out by the E-belt, and after going through the space between the Myler (5-113) and Myler holder, the end perforation is caught by the ratchet wheel (5-148) of the motor assembly (5-140).

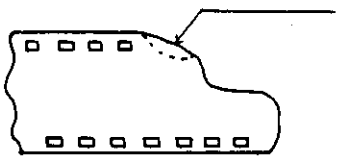
Check the Myler (5-113) to see if it is properly warped. If the Myler is flat, the film perforation may not be caught normally, causing the film to be rewound.

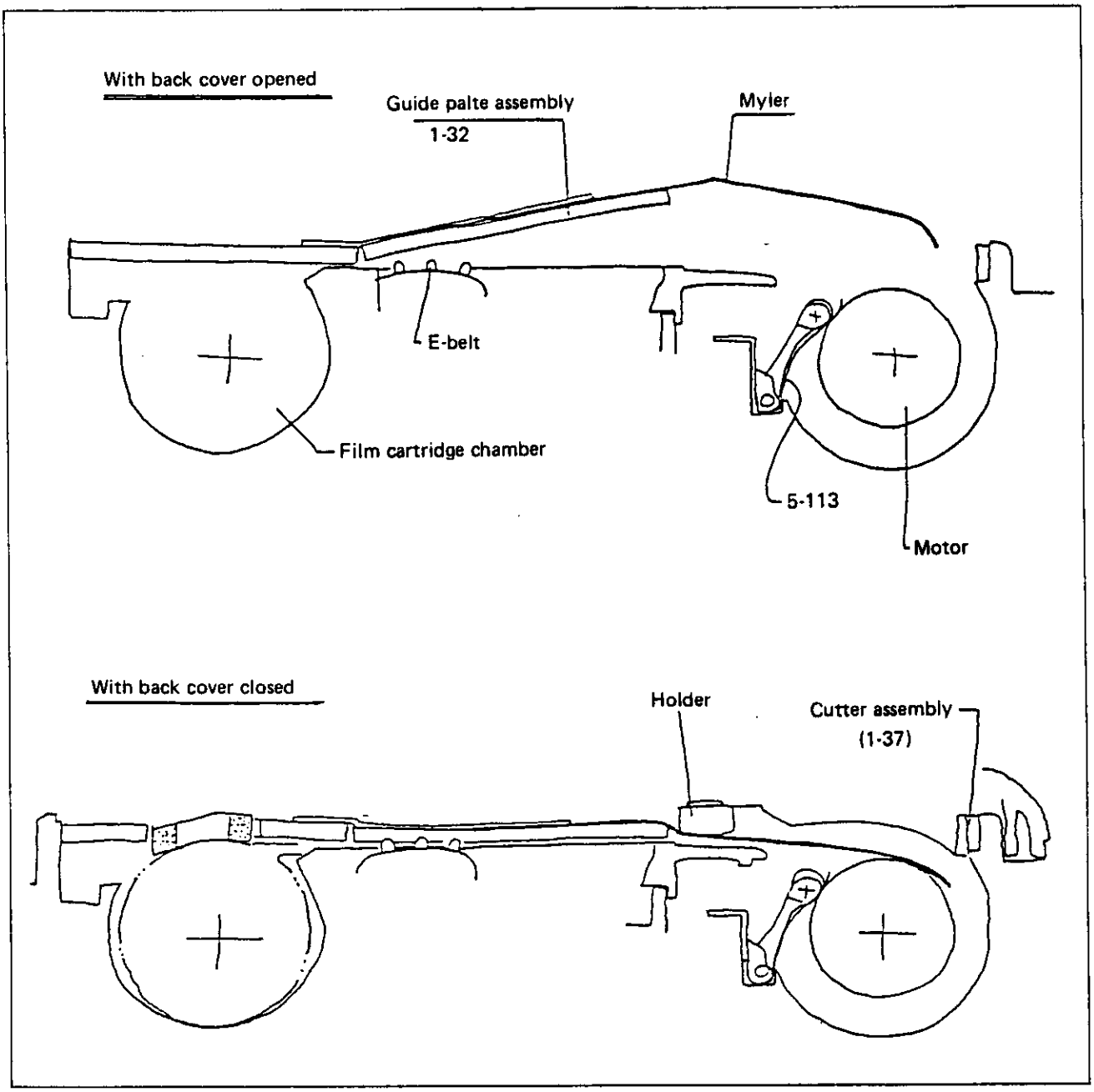
c. The Myler (5-113) is not installed correctly.

Check the Myler to insure that it is installed correctly. If not, the film end will stop at the Myler.

d. The film is bent.

Check the guide plate assembly (1-32) to insure that it is properly tilted. (The guide plate must be raised 6 mm at the edge.)


This portion of the film is bent.
When this portion is bent, the film will be returned at 32th through 34th exposures, or film will not be rewound completely to the first frame.


With back cover opened
Guide palte assembly
1-32
Myler
E-belt
Film cartridge chamber
5-113
Motor
With back cover closed
Holder
Cutter assembly
(1-37)

9-2 Film detecting lever (1-30) tears the film.

When the film is torn, it is not drawn out by the E-belt, causing the film wind/rewind confirmation lamp not to light. This trouble occurs due to improper film loading by the user. Teach the user how to load the camera with a film correctly.

9-3. Film is not advanced correctly by one frame by one frame but one frame is overlapped on another.

When this trouble occurs, check friction of the motor spool and friction washer (5-137) of the E-belt assembly (5-130), and adjust as indicated below.

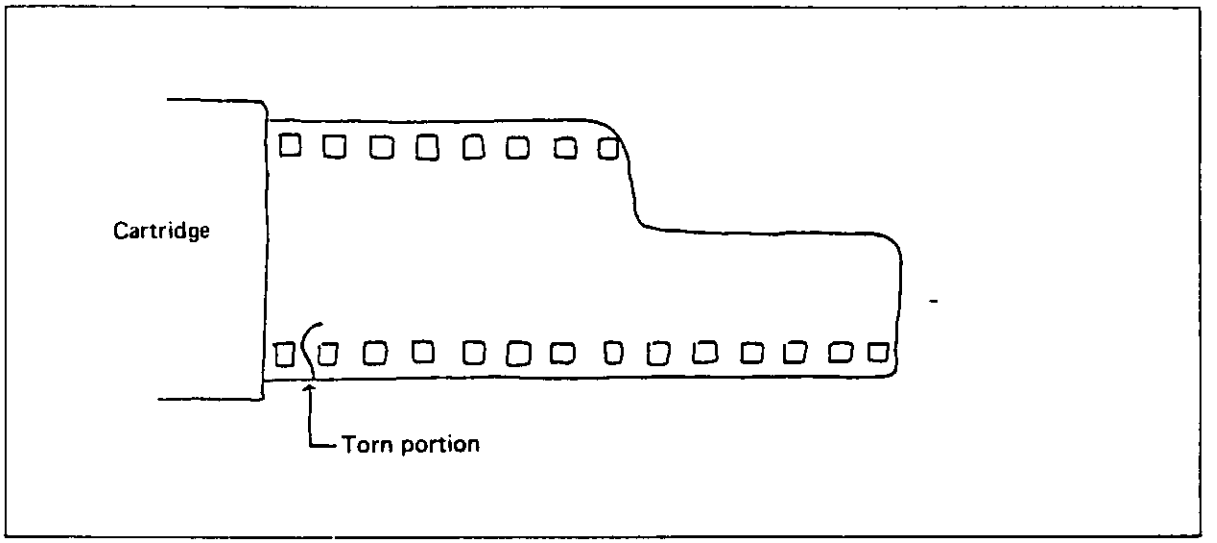
a. Adjust the friction plate (5-141) properly so that friction of the motor spool is 120 to 210 grams.

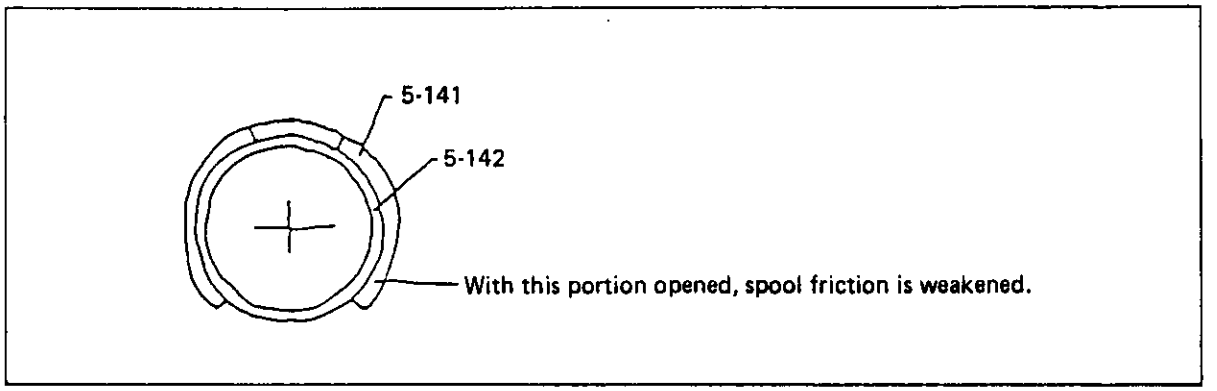
After completing the friction, make sure that the friction does not vary remarkably.

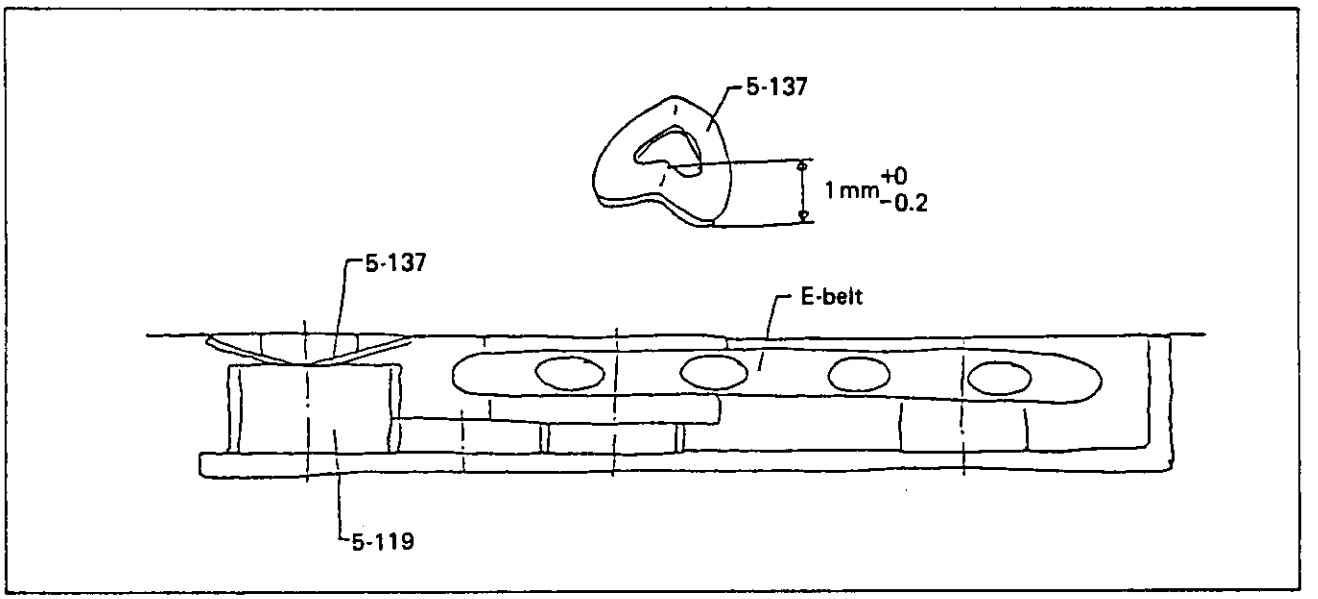
Do not use other grease than Losoid grease 6308/1-G.

b. Check the friction washer (5-137) for its $1^{+0}_{-0.2}$mm bending height. If necessary, readjust by properly bending it.

Be sure that the friction washer (5-137) is underneath the white gear (5-119).


Cartridge
Torn portion

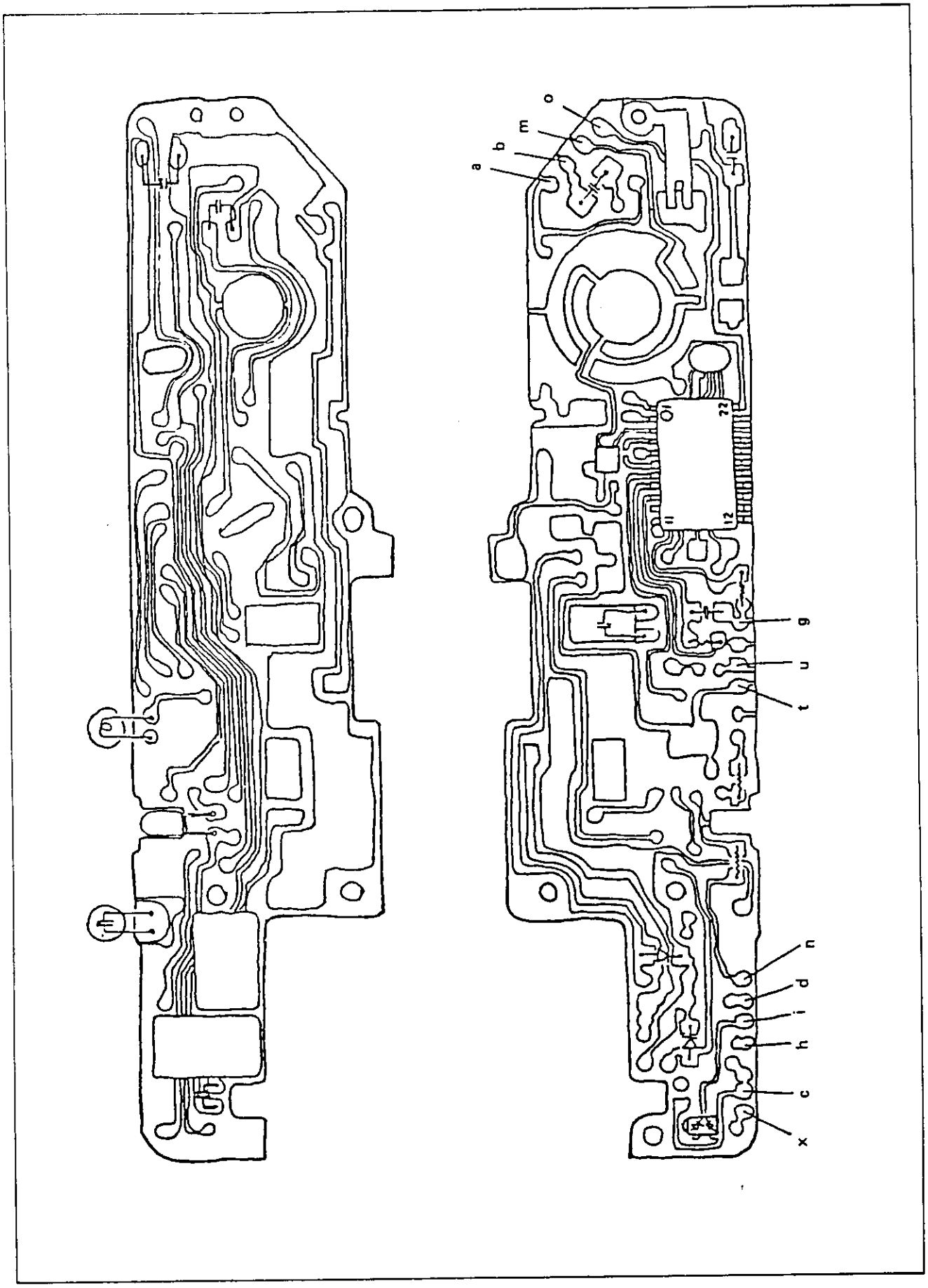

5-141
5-142
With this portion opened, spool friction is weakened.


5-137
1 mm +0 −0.2
5-137
E-belt
5-119

3. Terminal description for MC board assembly (3-7)

Terminal Symbol	Function
a.	Circuit power supply ⊕ 3V
b.	Circuit power supply ⊖
c.	Motor power supply ⊕ 3V (During rewinding only)
d.	* Date printing switch (causes the date shutter to operate only)
g	Ss switch ⊕ terminal
h.	3V is delivered to this terminal when the shutter release is depressed. (SP turns on). This terminal is to discharge capacitor C1.
i.	Source voltage minus 0.6 to 0.7V is delivered to this terminal when So switch turns on, SP switch turns on and/or during rewinding. With this terminal, flash charging stops under the above modes.
m.	SM switch terminal
n.	Flash ready lamp terminal
o.	So switch terminal
t.	* Date shutter terminal ⊕
u.	* Date shutter terminal ⊖
w.	Camera shake warning LED terminal
x.	Motor power supply ⊕ 3V (for winding)

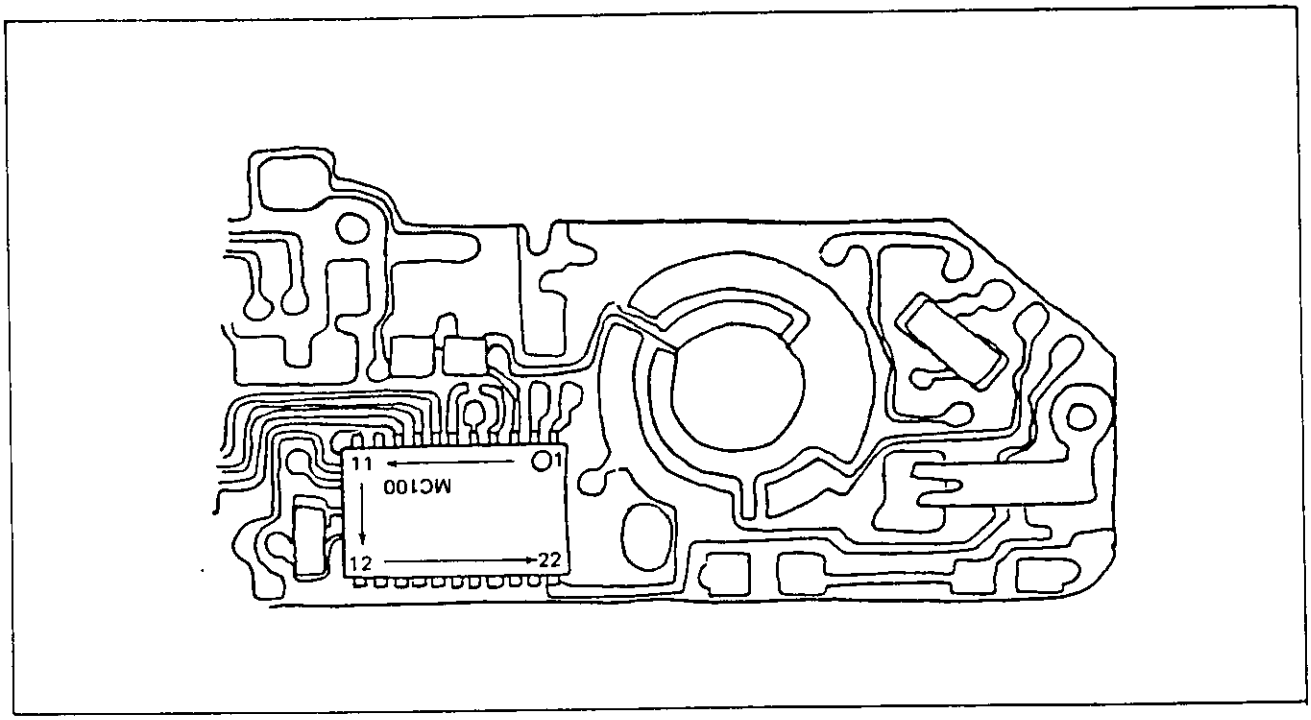
(* : Not applicable to those having no dating system.)

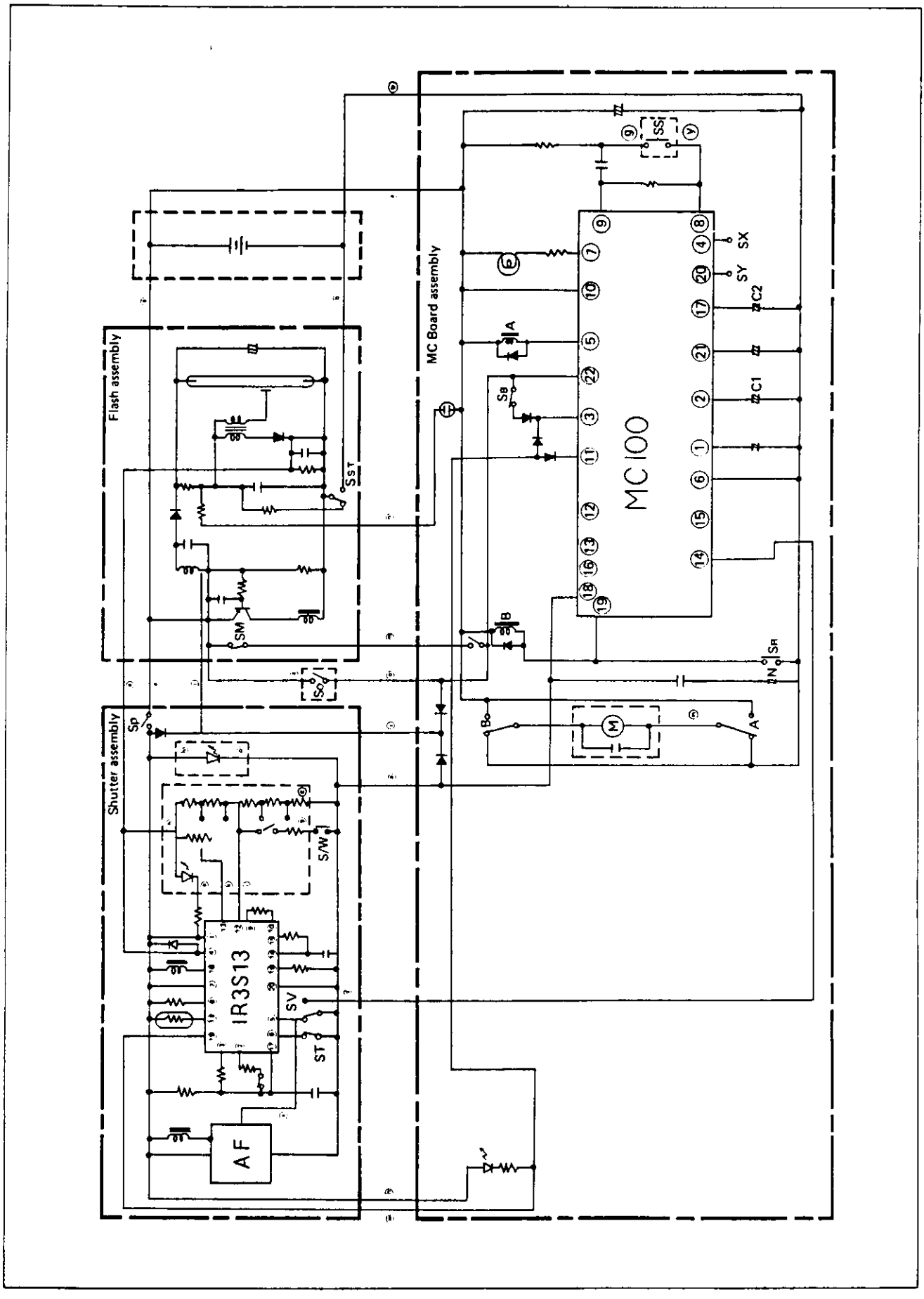

o
m
b
a
g
u
t
n
d
i
h
c
x

4. MC100 terminal (on MC board) description [IC for motor control]

Terminal Number	Function
1	Capacitor terminal for delaying film wind starting
2	Capacitor C1 terminal (To this terminal, the time limit circuit capacitor is connected. When operation mode is changed over from film wind stop to film rewind, the time limit circuit detects that the film wind has stopped.)
3	Film wind time limit circuit discharge input terminal
4	————
5	Film wind relay A connecting terminal
6	GND
7	Ss lamp terminal
8	Ss signal inhibiting circuit input terminal (for stand-by)
9	Ss signal input terminal
10	Ss circuit power supply terminal (+)
11	*Date circuit cover switch input terminal
12	*Date lamp terminal
13	*Date shutter terminal
14	*Date circuit (—) (SD) terminal
15	*Capacitor terminal for date circuit time set.
16	*Date circuit power supply terminal (+) (Date main switch is connected here).
17	Capacitor connecting terminal (for rewind time limit)
18	Rewind circuit power supply terminal (+)
19	Film rewind relay B connecting terminal
20	————
21	Capacitor connecting terminal (For delaying rewind start circuit)
22	So, SM, So input terminal (Film wind circuit power supply (+))

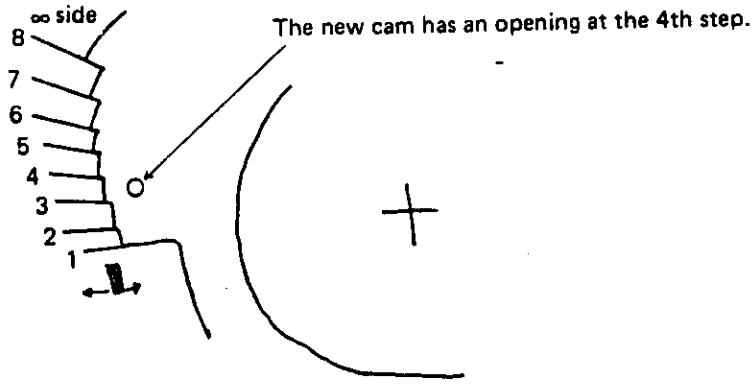
(*: Not applicable to those having no dating system.)


11
01
MC100
12
22


Flash assembly
MC Board assembly
Shutter assembly
MC100
IR3S13
AF
SM
SST
Sp
S/W
SV
ST
SB
SR
SX
SY
C2
C1
M

Automatic Focusing Accuracy

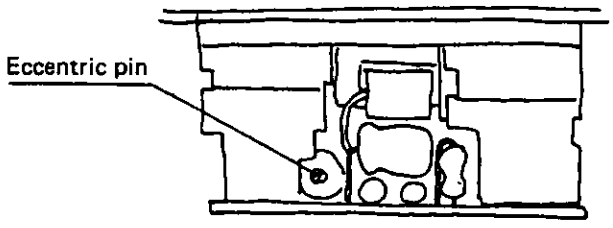
With the standard reflecting board (Oxford Gray No. 22; Reflection rate: 18%) used, the accuracy must be within plus or minus one step of each step shown below.



Step No.	Distance measuring range	
1	1m	0.5m ~ 1.07m
2	1.14	~ 1.23m
3	1.34	~ 1.46m
4	1.62	~ 1.81m
5	2.06	~ 2.30m
6	2.62	~ 3.04m
7	3.63	~ 4.52m
8	6.00	~ ∞

When the accuracy is not within plus or minus one step of each step or when accuracy is deviated at all steps in parallel, adjust the eccentric pin in the AF system. (Primarily, this adjustment is not required.)

No adjustment is required on the control lever.

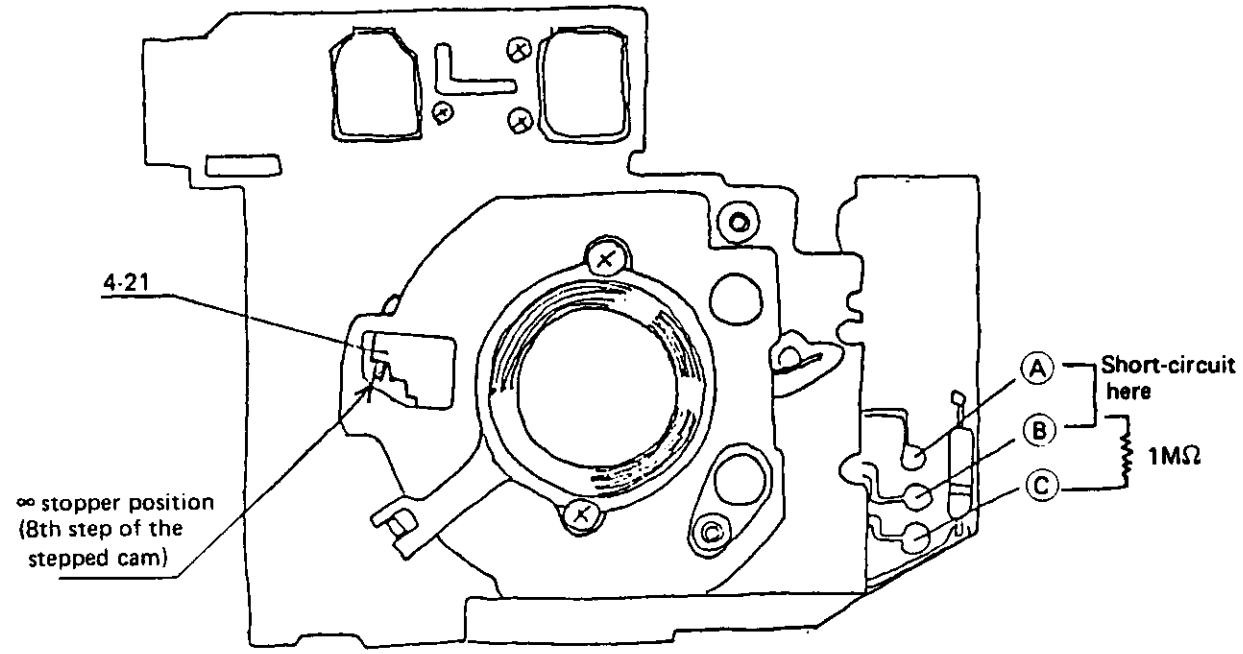


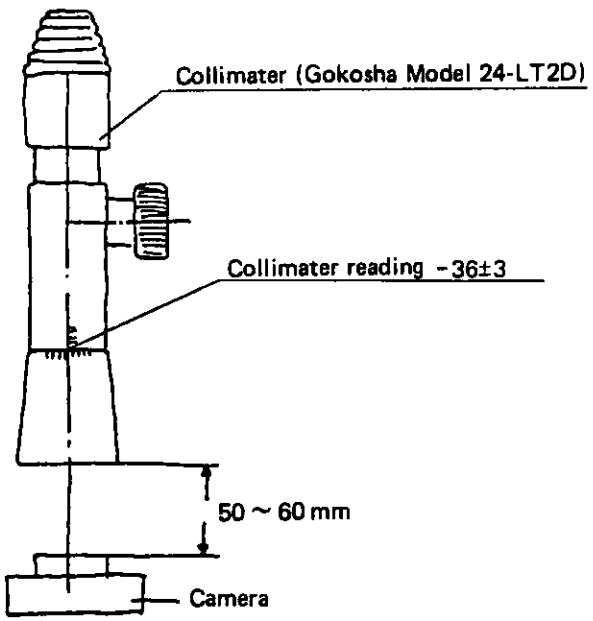
22. Focus adjustment (6.00m setting)

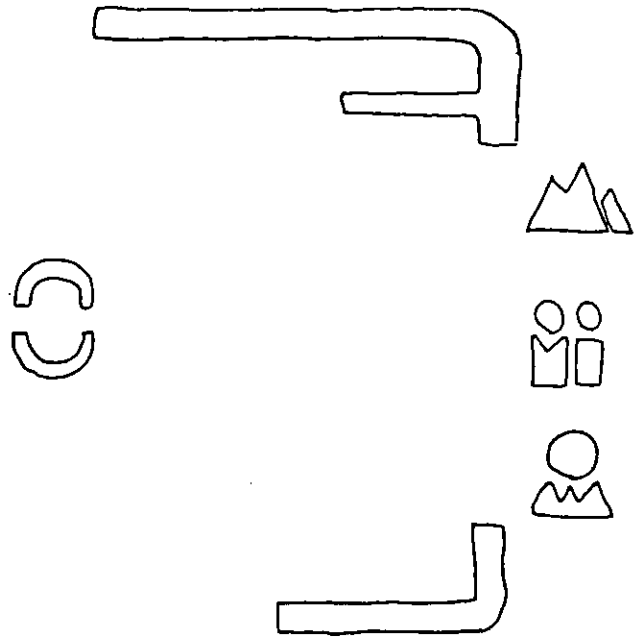
- Apply DC 3V to power supply terminals (lead wires 7-5 and 7-6) of the MC board assembly (3-7).
- Release the shutter and fully open it.

  To fully open the shutter, short-circuit terminals Ⓐ and Ⓑ shown in the right hand figure, and connect a 1MΩ resistor across terminals Ⓑ and Ⓒ.
- Make sure that the AF stopper of the lens is on the ∞ position on the stepped cam (4-21) when the shutter is released.

  Cover up either one of the autofocus windows to shield light. The AF stopper will then be positioned on ∞.
- Using a collimater (Gokosha Model 24-LTD2), loosen two set screws (4-32), turn the lens and adjust focusing performance so that sharp images can be obtained. The collimator reading (adjusted value) should be −36±3.
- When the adjustment is completed, lock the two set screws (4-32) with Pliobond.


4-21
∞ stopper position
(8th step of the
stepped cam)
Ⓐ
Short-circuit
here
Ⓑ
1MΩ
Ⓒ


Collimater (Gokosha Model 24-LT2D)
Collimater reading -36±3
50 ~ 60 mm
Camera



Corresponding steps
[stepped cam (4-21)]

8	6.00 m
7	3.63 m
6	2.62 m
5	2.06m
4	1.62m
3	1.34m
2	1.14m
1	1m

- Both LEDs light at 3rd and 6th steps.
- Rating: ±1 step

The following parts for the flash limiter are changed or added as indicated below.

Stopper (leaf spring)	(87B3658492)	Added
Holder	(85B3658460)	Added
Screw (4-15)	(113M170501M)	Changed
Screw	(120M140153M)	Added
Aperture plate (4-8)	(26B3658165)	Changed
Stepped cam (4-21)	(35B3655440)	Changed

28. Adjusting flash limiter

a. Raise the flash lamphead, release the shutter with the autofocus system measuring infinity, and make sure that the aperture plate runs toward the arrow direction and it stops at portion "a" of the stopper (leaf spring).

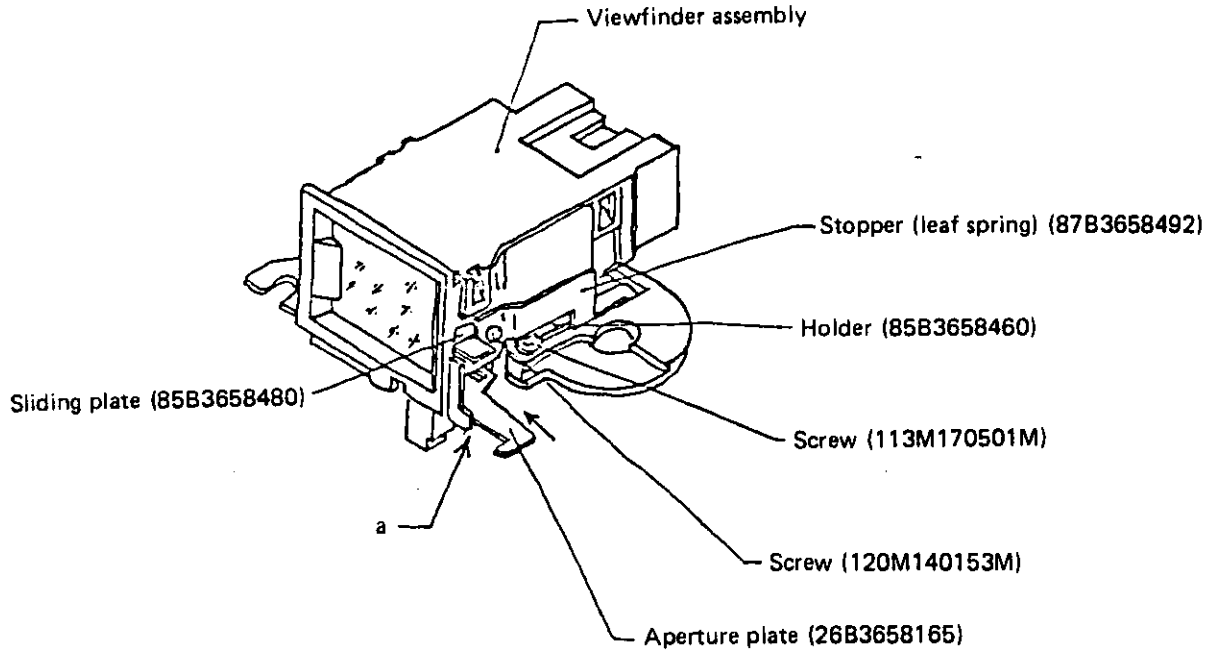
b. Repeat the above test several times, and adjust flash limiter performance by turning the screw (120M140153M) properly to the left or right so that the stepped cam stops at the 7th step (when measuring infinity).

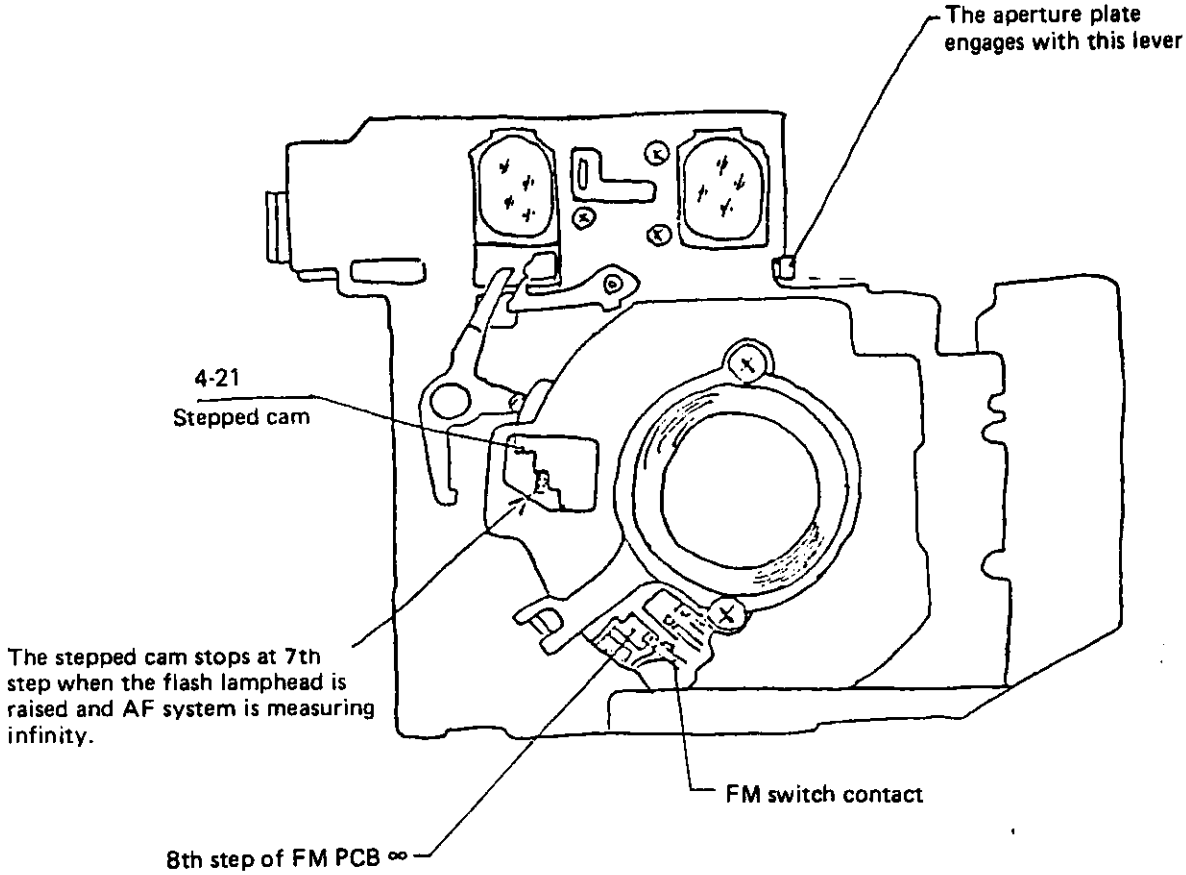
c. When the above adjustment is completed, lock the screw with Pliobond.

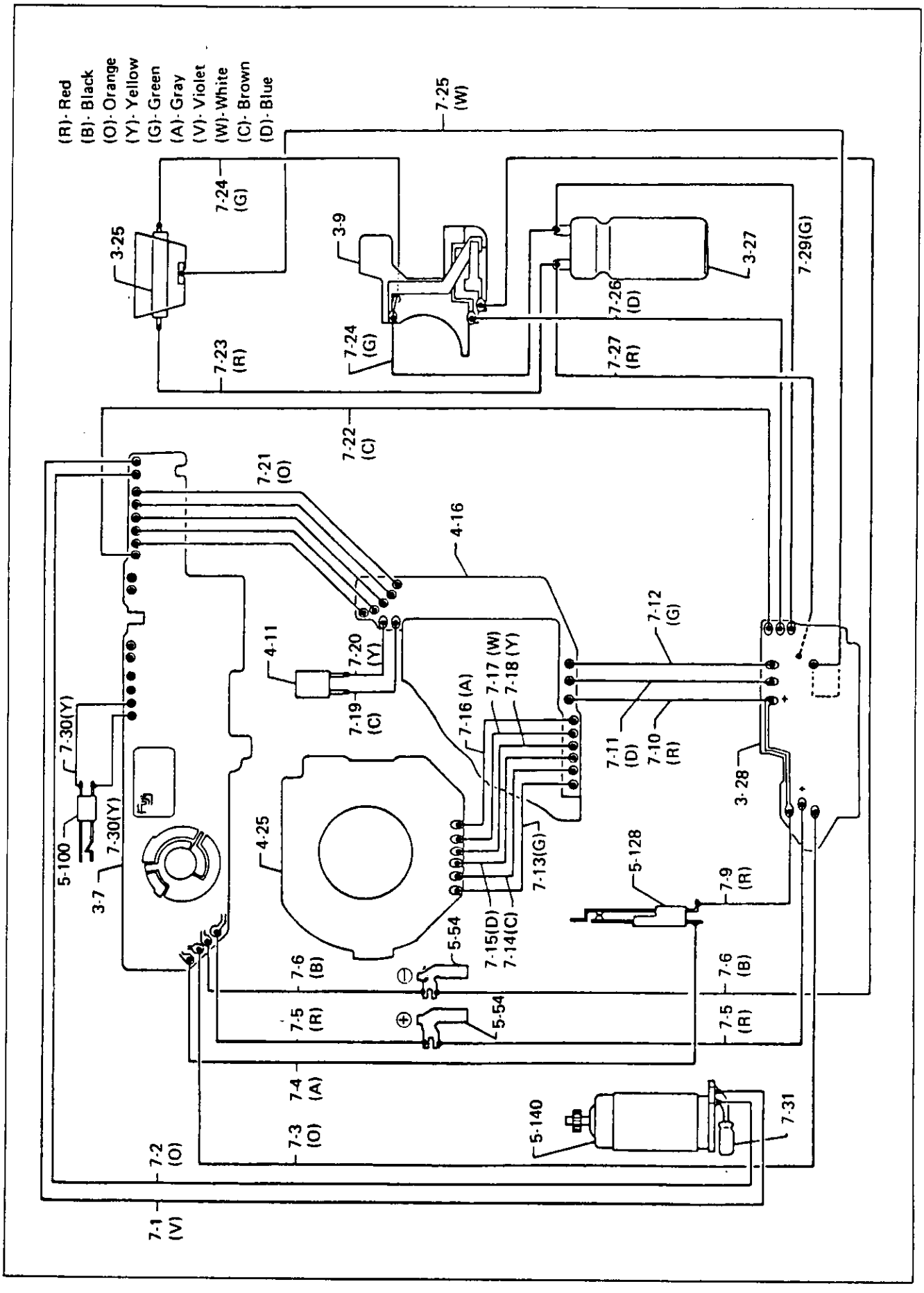
d. Make sure that the aperture plate does not run against the portion "a" of the leaf spring when the flash lamphead is accommodated in the camera body, and that it reaches the 8th step when measuring infinity without fail.

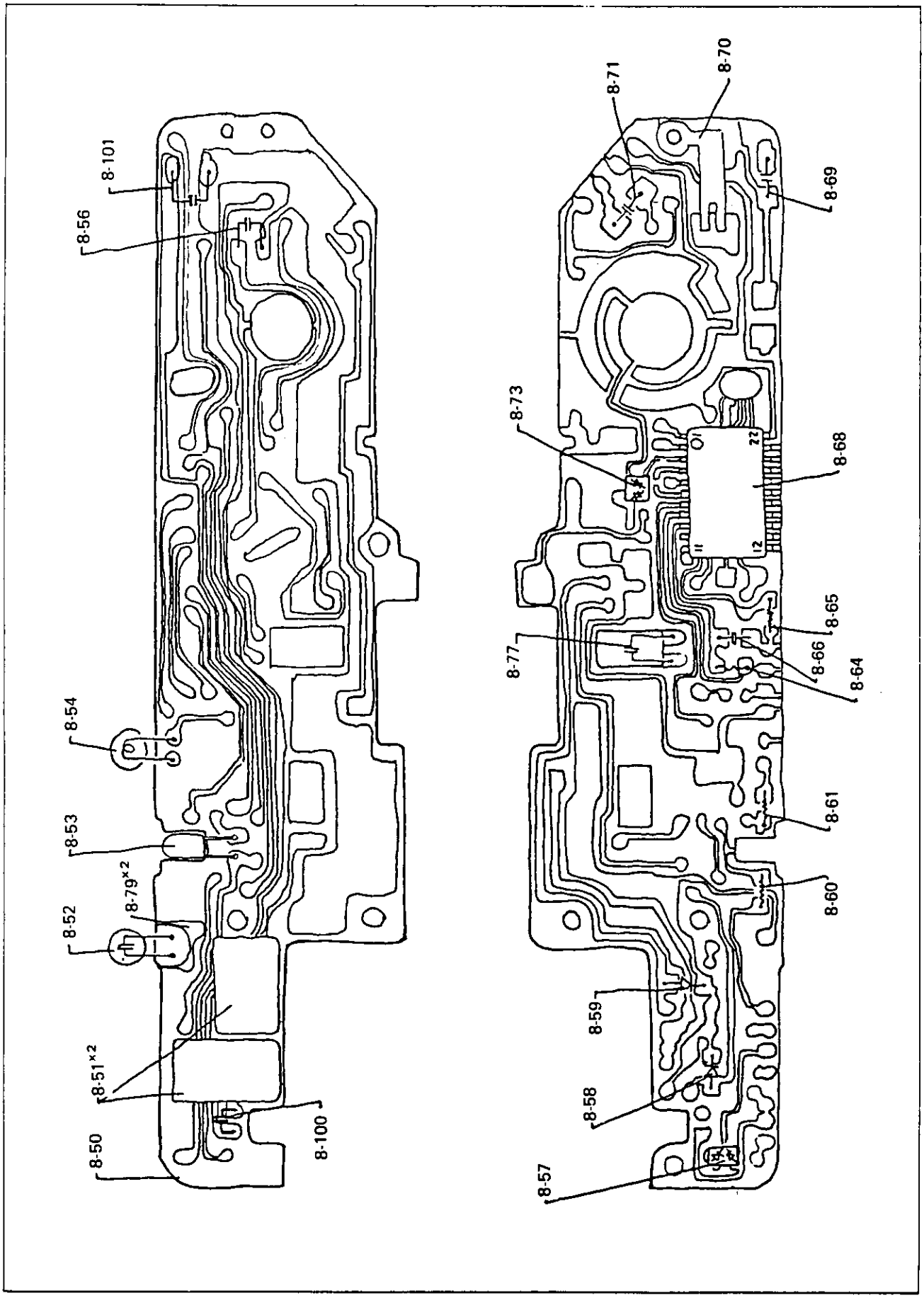
e. Make sure that when the flash lamphead is raised and the lens stops at the 7th step of the stepped cam, the FM switch turns on at the 8th step (infinity).

NOTE: The FM switch conventionally had only one contact. However, as the FM printed circuit board is changed, the FM switch uses two contacts.


Viewfinder assembly
Stopper (leaf spring) (87B3658492)
Holder (85B3658460)
Sliding plate (85B3658480)
Screw (113M170501M)
a
Screw (120M140153M)
Aperture plate (26B3658165)


The aperture plate engages with this lever
4-21
Stepped cam
The stepped cam stops at 7th step when the flash lamphead is raised and AF system is measuring infinity.
FM switch contact
8th step of FM PCB ∞


(R)- Red
(B)- Black
(O)- Orange
(Y)- Yellow
(G)- Green
(A)- Gray
(V)- Violet
(W)- White
(C)- Brown
(D)- Blue
7-25 (W)
7-24 (G)
3-25
3-9
3-27
7-29(G)
7-26 (D)
7-23 (R)
7-24 (G)
7-27 (R)
7-22 (C)
7-21 (O)
4-16
7-12 (G)
4-11
7-20 (Y)
7-19 (C)
7-16 (A)
7-17 (W)
7-18 (Y)
7-11 (D)
7-10 (R)
3-28
7-30(Y)
5-100
7-30(Y)
3-7
4-25
5-128
7-9 (R)
7-13(G)
5-54
7-15(D)
7-14(C)
7-6 (B)
7-5 (R)
5-54
7-6 (B)
7-5 (R)
7-4 (A)
7-3 (O)
5-140
7-31
7-2 (O)
7-1 (V)


8-101
8-56
8-54
8-53
8-79×2
8-52
8-51×2
8-50
8-100
8-71
8-70
8-69
8-73
8-68
8-77
8-65
8-66
8-64
8-61
8-60
8-59
8-58
8-57